northern telecom

IOS

TRAINING CENTER

COURSE CATALOG

1987

IOS Training Center — Overview

COMMITMENT / MARKETS SERVED:

The Meridian IOS Training Centers are an important component of Northern Telecom's overall **commitment to our customers.** Through the Centers, we provide a training service to each of three major Integrated Office Systems Division Markets:

- Customers
- Distributors
- Employees

AUDIENCES:

Within each of the above markets, we provide training to those people who perform the job functions listed below:

JOB FUNCTIONS	HARDWARE	SOFTWARE	SYSTEMS
Install	X	X	
Maintain	X	X	
Configure		X	X
Administer/Manage		X	X
Sell/Market			X

LOCATIONS:

At present, the Center offers training at each of the four (4) facilities:

Meridian SL-1:
- Los Alamitos, California
- Parsippany, New Jersey
- Plano, Texas

Meridian SL-100/Common Carrier:
- Richardson, Texas

Not all Meridian SL-1 training courses are offered at the Parsippany, Plano, and Los Alamitos facilities. Please check the specific course schedule to be sure of the proper location.

TRAINING SERVICES:

Lecture/lab and self-paced instruction are available. Prices for these services vary according to type, duration and location. Some courses are available for delivery at your location. Please check with one of the training coordinators for more details. Complete information is presented in the course schedule.

LECTURE / LAB:

Classroom style lecture/lab courses are conducted by knowledgeable instructors at each of our four facilities. Enrollment is generally limited in each class in order to provide ample opportunity for students to experience hands-on utilization and practice on the equipment.

SELF-PACED:

Self-paced training may be distributed directly to the student's location. Order forms are available in the back of the catalog.

LOCATIONS

Los Alamitos, California

Northern Telecom Training Center
11132 Winners Circle
Los Alamitos, CA 90720

Parsippany, New Jersey

Northern Telecom Training Center
4 Century Drive
Parsippany, NJ 07054

Plano, Texas

Northern Telecom Training Center
520 Central Pkwy, Ste. 300
Plano, TX 75074

Richardson, Texas

Northern Telecom Training Center
899 Presidential Dr.
Richardson, TX 75081

SCHEDULING / CLASS SIZE

All training is offered on a "space available" basis. Registration should be arranged early, as classes reach capacity well in advance. All scheduling is done on a "first come, first serve" basis. Classes consist of a maximum of 12 students and a minimum of 6 students unless otherwise indicated.

REGISTRATION

Call any of our training centers:

(214) 422-8138
Plano, TX

(213) 598-7657
Los Alamitos, CA

(201) 539-7695
Parsippany, NJ

(214) 234-7722
Richardson, TX

When registering by phone, please be prepared with the following information:

- Student and company name
- Address
- Phone number
- Student's social security number
- Course name, number and dates attending. (An alternate schedule may be requested if the first course preference is filled.)
- Method of payment

Upon receipt of payment, a confirmation letter will be sent to the address you specified when registering.

IMPORTANT information is contained in your confirmation letter. Please note the course, title, dates, location and class shift listed on your confirmation letter. Contact the training coordinator at (214) 422-8138 for Meridian SL-1 and (214) 234-7722 for Meridian SL-100 and Common Carrier if you have not received your letter one week prior to class. You must have a written confirmation to attend class.

Or

Complete a registration form and mail it with your payment to:

Meridian SL-1

Northern Telecom Training Center
Attn: Training Coordinator
520 Central Pkwy, Ste. 300
Plano, TX 75074

Meridian SL-100 / Common Carrier

Northern Telecom Training Center
Attn: Training Coordinator
866 Presidential Dr.
Richardson, TX 75081

CANCELLATION

Customer cancellations are treated as follows:

- Cancellation of any registration for a training center course less than 10 working days prior to the starting date is subject to forfeiture of tuition.
- On-site field training courses cancelled in writing less than 30 days prior to the starting date are subject to forfeiture of tuition.
- If a registered student fails to appear for a scheduled training center course or fails to complete the entire course, the full tuition is charged.
- When a cancellation request is made, the training center will issue a cancellation number. Future inquiries regarding cancellations should reference the cancellation number assigned at the time of cancellation.
- If warranted, a credit or refund will be issued 3 to 4 weeks from date of inquiry.

Northern Telecom Inc. reserves the right to change course schedules, discontinue courses, modify course content, limit class size and cancel courses when necessary. In case of cancellation, every effort will be made to notify students 2 weeks prior to the scheduled starting date.

TUITION

Tuition rates (excluding field training) are indicated on the course schedule. Please see the course schedule for specific charges.

Field Training Rates:

- $1000.00 per day of instruction for up to 12 students. Twelve students are the maximum allowed in a class.
- Actual travel and living expenses incurred
- Material shipping costs

PAYMENT

PAYMENT IN FULL MUST ACCOMPANY REGISTRATION. Full payment is required 30 days prior to the start of training. Payment may be a check or money order, payable to: Northern Telecom Inc.

It is the responsibility of each registered student to ensure that his or her company has made appropriate payment arrangements prior to class attendance.

After receipt of payment, the training center provides a written confirmation of your registration along with hotel information and directions to the training center.

Northern Telecom Inc. reserves the right to change prices at any time. Confirmed reservations will be honored at the original price.

RETURN OF SELF-PACED COURSE MATERIAL

The training center accepts returns on packaged products only under the following conditions:

- Materials damaged in shipment or shipped incorrectly will be accepted for return within 30 days of purchase.
- Audiovisual material that is found to be defective will be replaced if returned within 30 days of purchase.

To ensure that your return is properly handled, the training center requires that you use the following procedures:

1. Call the training center and notify the training coordinator of your desire to return the training center's packaged product.
2. Follow the training coordinator's instructions on how to return the material.

IMPORTANT: The training center will not accept returns without prior authorization.

TRAVEL ARRANGEMENTS

A convenient toll-free number has been arranged with Gelco Travel Services to make travel as convenient and economical as possible for our training center students.

Call (800) 835-8980 and mention that you are a Northern Telecom student. Gelco will offer the best possible rates for your particular travel requirements, including discounts of up to 35% off coach air fare, plus special student rates on hotel accommodations and car rentals.

TRANSPORTATION

All transportation is the responsibility of the student. Detailed information is provided in your confirmation package.

- Plano, TX

  Transportation to and from the airport is available through taxis, limousines, rental cars, and independent airport shuttles.

  The recommended hotels either provide transportation to and from the training center or are located within walking distance.

- Los Alamitos, CA

  Transportation to and from the airport is available through taxis, limousines, rental cars and hotel shuttles with prior reservations. The recommended hotels provide transportation to the training center.

- Parsippany, NJ
  and Richardson, TX

  Transportation to and from the airport is available through taxis, limousines, and rental cars. Transportation to and from the hotels is the responsibility of the student.

LODGING

Registration information for hotels which the training center recommends is provided in the course confirmation package. We encourage you to stay at these recommended hotels as they offer reduced rates to training center students.

IDENTIFY YOURSELF AS A TRAINING CENTER STUDENT TO ENSURE THE NORTHERN TELECOM RATE.

MEALS

The training center has no facilities for meals. Upon arrival at class, each student is provided with a list of area restaurants with a corresponding map. The training center is equipped with vending machines to provide light snacks and beverages.

HOLIDAYS OBSERVED

The following holidays will be observed for 1987 at the NTI Training Centers:

New Year's Day - Thursday, January 1

Good Friday - Friday, April 17

Memorial Day - Monday, May 25

Independence Day - Friday, July 3

Labor Day - Monday, September 7

Thanksgiving - Thursday, November 26 and Friday, November 27

Christmas - Friday, December 25 through Thursday, December 31

CLASSROOM RULES

Dress

Dress for attendance is normal business attire (no sandals, T-shirts, or shorts).

Class Attendance

Your confirmation letter will indicate class dates and times. 100% attendance is mandatory. Please be sure your travel arrangements allow sufficient travel time to accommodate class hours.

Documentation

Course documentation and printed matter provided in Northern Telecom's training courses are copyrighted and may not be reproduced without prior permission. No audio or visual recording of Northern Telecom Inc. training courses, or Northern Telecom Inc. personnel teaching such courses, may be taken or reproduced electronically without prior permission.

Telephone

Incoming messages for students will be posted on the student bulletin board. Training center policy prohibits class interruption with telephone calls except in cases of emergency.

TRAINING ASSISTANCE

Inquiries about information contained in this publication should be directed to the Northern Telecom Training Center Coordinator at (214) 422-8138 for Meridian SL-1 and (214) 234-7722 for Meridian SL-100 and Common Carrier.

PREREQUISITES

Prerequisites have been established for most courses. These prerequisites are reasonable expectations of minimal skills and product knowledge necessary for the successful completion of a particular course.

Material covered in the various prerequisites is assumed knowledge built into the design of each course and is the "starting point" for that course; thus, the prerequisite material serves as a foundation upon which subsequent information is added.

Prerequisites provide the following benefits:

- Help students successfully complete the course
- Make better use of a student's time by eliminating review and ensuring all students start at the same point
- Allow time for more in-depth coverage of course content

We know that completing prerequisites is no small achievement. Nor is it an unrealistic or impossible goal.

We consider prerequisites to be an important component of our training strategy, and believe that students who complete prerequisites are more likely to be successful not only in the course, but back on the job.

Recommended Prerequisites

Please note that there are also recommended prerequisites. These courses are suggested to aid in the learning process and give the student a better understanding of the material presented. They are not enforced prerequisites.

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Training Maps

Training maps are graphic illustrations of the sequence of a given set of courses. The training maps show the **Recommended Training Curriculum** for various representative job functions. By using one of these maps, a student can determine what courses are available to help him/her perform a range of job related tasks and activities. The Course Description for each course shown on the map will provide the information needed to determine the specific knowledge and skills to be addressed in that course.

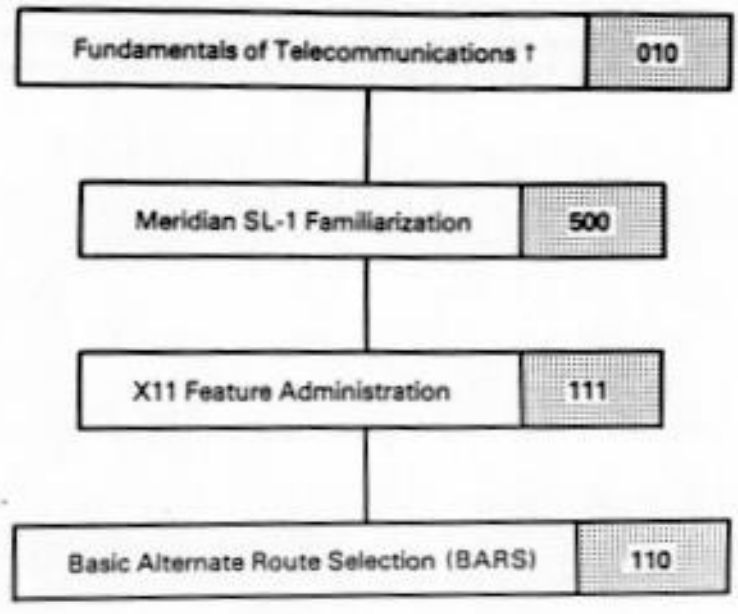
If your job includes installing, maintaining or working with advanced services such as TRU Call Detail Recording, LANSTAR Data Products, IVMS, ACD-D, ESN, Hotel/Motel, etc., then check the Course Description section of this catalog. Specialized courses such as these are not included in the Training Maps due to the specific nature of the topics.

Training Map

If your job includes:

- Entering data for Meridian SL-1 Features

Here are the recommended training courses to assist you in performing those tasks:



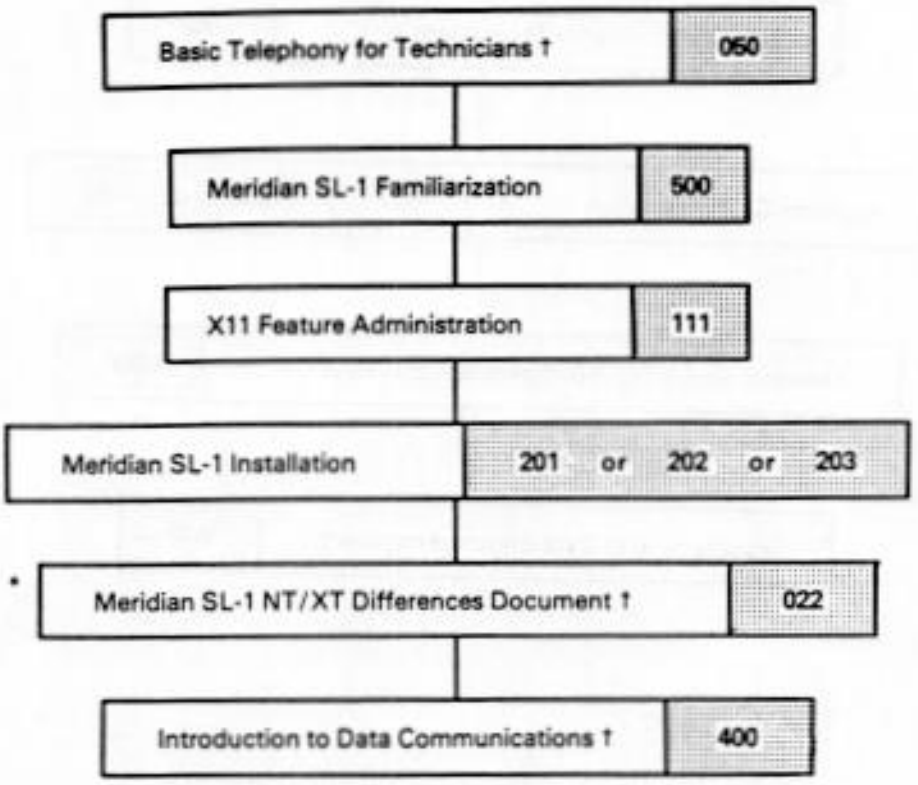
† Self-Paced Course

Training Map

If your job includes:

— Installation of Meridian SL-1 Hardware and Software

Here are the recommended training courses to assist you in performing those tasks:



† Self-Paced Course

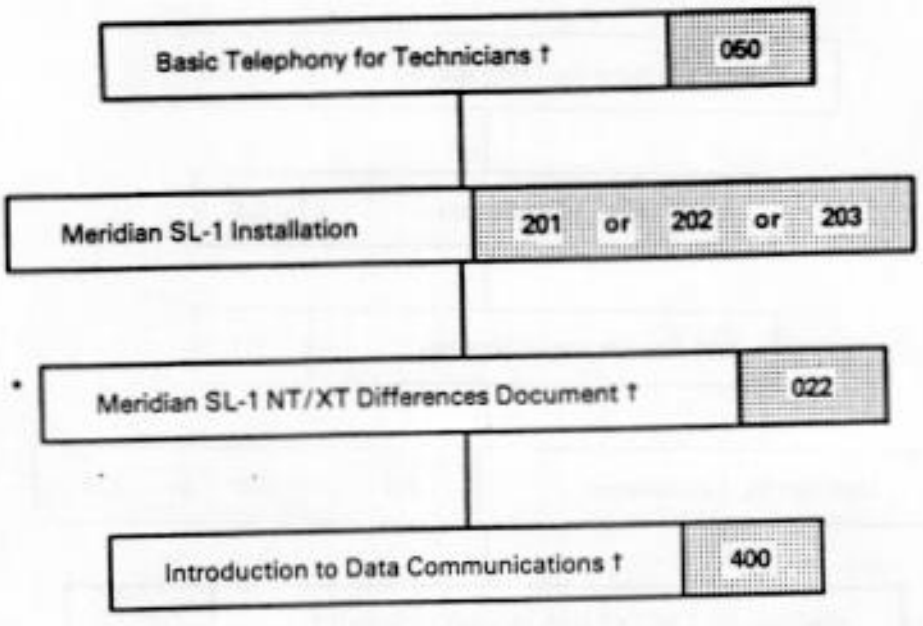
* For students who have completed 201, 202, or 203 prior to August 19, 1986.

Training Map

If your job includes:

– Installation of Meridian SL-1 Hardware

Here are the recommended training courses to assist you in performing those tasks:



† Self-Paced Course

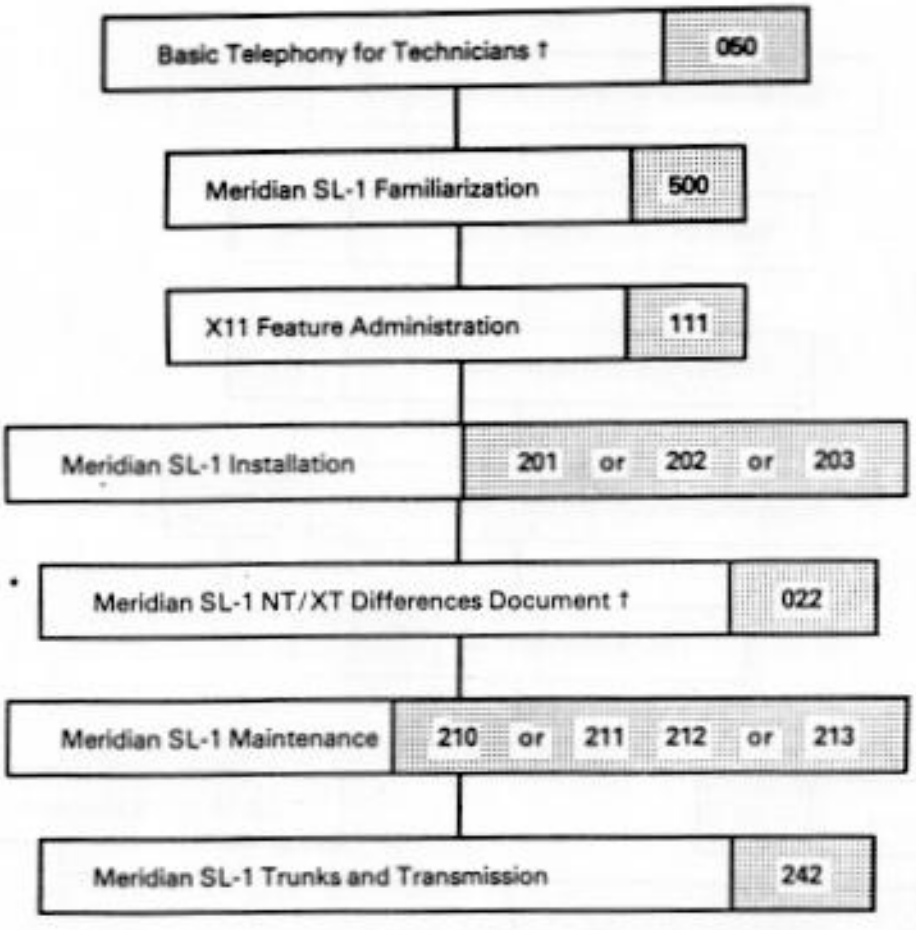
• For students who have completed 201, 202, or 203 prior to August 19, 1986.

Training Map

If your job includes:

— Maintenance of Meridian SL-1 Hardware and Software

Here are the recommended training courses to assist you in performing those tasks:



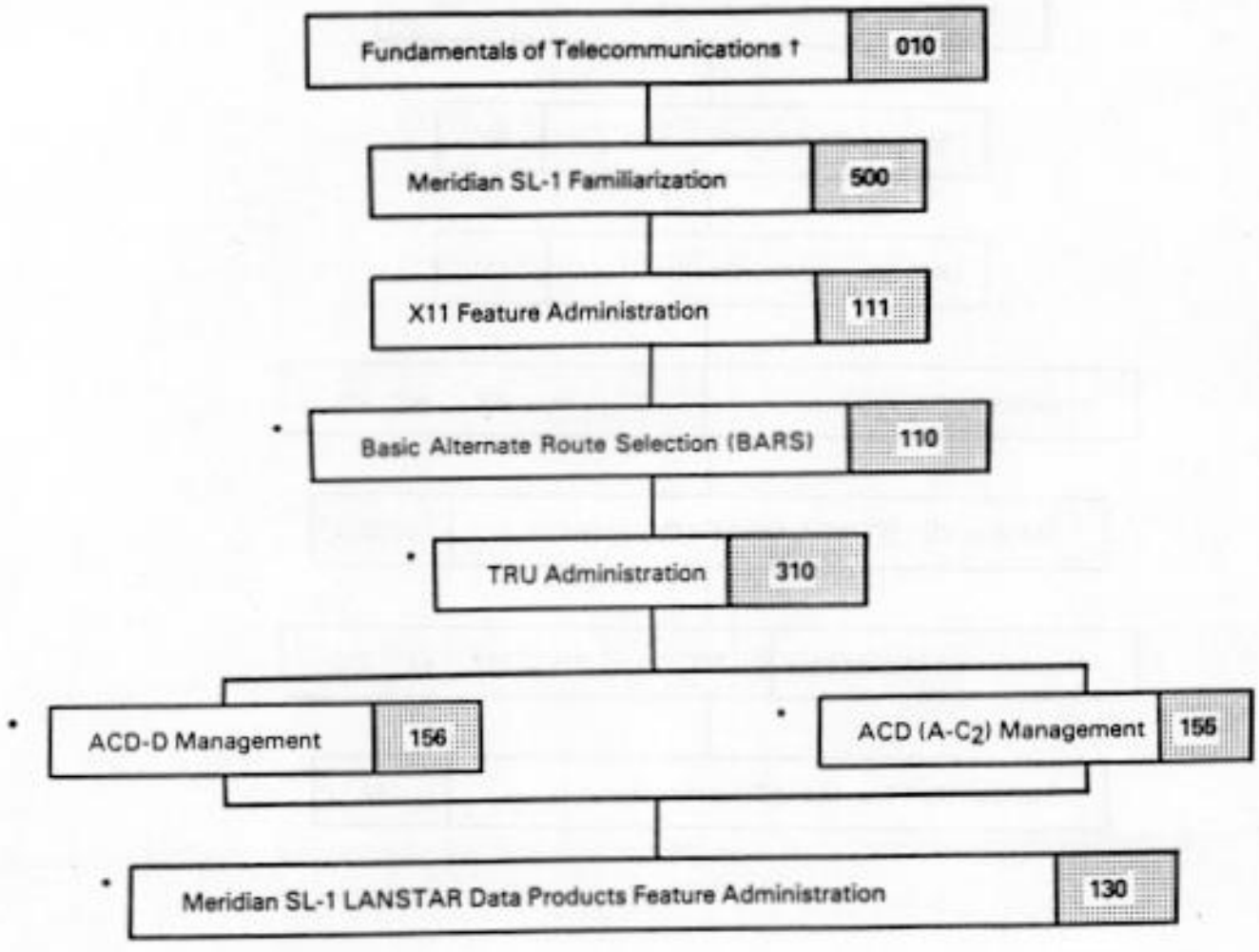
† Self-Paced Course

* For students who have completed 201, 202, or 203 prior to August 19, 1986.

If your job includes:

– Administering and managing a Meridian SL-1 for your company

Here are the recommended training courses to assist you in performing those tasks:



† Self-Paced Course
• If applicable. Refer to course descriptions.

Course #110: Basic Alternate Route Selection (BARS)

Audience: Support personnel who have successfully completed X11 Feature Administration (111) and will be responsible for generating and maintaining customer data on Meridian SL-1s equipped with the BARS features.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to generate, input, revise and maintain the BARS feature on the Meridian SL-1. Content includes:

- BARS access code
- Digit translation
- Supplemental digit restriction
- Automatic least cost routing
- Time of day schedules
- Digit manipulation
- Free calling area screening
- Network class of service
- Routing control
- Basic authorization code
- Call back queuing
- Off-hook queuing
- Off-net number recognition
- Incoming trunk group exclusion
- Hands-on practice of features

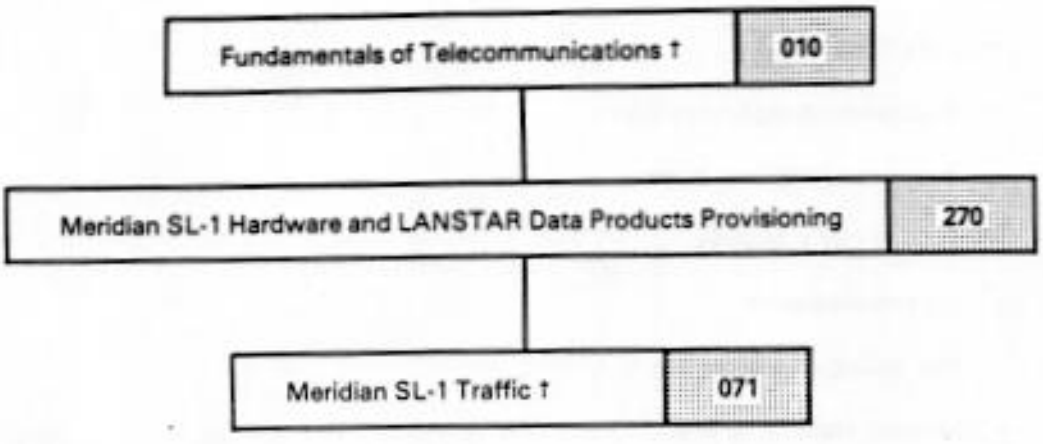
Prerequisites: Meridian SL-1 Familiarization (500), and
X11 Feature Administration (111).

Training Map

If your job includes:

– Configuring the Meridian SL-1 and/or analyzing traffic reports

Here are the recommended training courses to assist you in performing those tasks:



† Self-Paced Course

Course #110: Basic Alternate Route Selection (BARS)

Audience: Support personnel who have successfully completed X11 Feature Administration (111) and will be responsible for generating and maintaining customer data on Meridian SL-1s equipped with the BARS features.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to generate, input, revise and maintain the BARS feature on the Meridian SL-1. Content includes:

- BARS access code
- Digit translation
- Supplemental digit restriction
- Automatic least cost routing
- Time of day schedules
- Digit manipulation
- Free calling area screening
- Network class of service
- Routing control
- Basic authorization code
- Call back queuing
- Off-hook queuing
- Off-net number recognition
- Incoming trunk group exclusion
- Hands-on practice of features

Prerequisites: Meridian SL-1 Familiarization (500), and X11 Feature Administration (111).

Course #050: Basic Telephony for Technicians (Self-Paced)

Audience: Inexperienced installation technicians

Length: 2½ - 4 hours — Self-Paced, under the guidance of an experienced facilitator.

Course Description: This course is designed to provide the student with an introduction to telephony. Content includes:

- Telephone hand tools — Students learn to use common hand tools (Dracon punch tool, probe, butt set, tone test set, etc.) intended specifically for the telephone industry.
- Basic electricity — Students learn about voltage, current, resistance, conductors, insulators, and parallel circuits.
- Building construction and running cables — Students learn how to read floor plans, and how to run cables connecting switchroom, utility closets, and telephone jacks through various types of construction.
- Telephone set operation — Students learn how the telephone works and practice removing and reinstalling field removable components on 500 and 2500 type telephone sets.
- Trouble identification and repair — Students learn to detect and isolate equipment failures and practice troubleshooting defective cables and telephone sets.

Prerequisites: None

Materials Required: VHS videocassette player and monitor

NOTE: The course is a workshop designed to be administered by a person with a strong telephony background to a group of approximately 6 - 10 inexperienced technicians.

The administrator's guide contains a ½ inch VHS videocassette. The videocassette player and monitor are NOT provided.

Course #051: Introduction to the Meridian SL-1 (Self-Paced)

Audience: Customers, sales personnel, sales support personnel, installation technicians, database technicians, maintenance technicians, and customer service representatives

Length: 8 hours to 12 hours with a choice of hardware or software path.

Course Description: This course is designed to provide the student with a working knowledge of the fundamental operation of the Meridian SL-1 (only one system is studied in this course and a choice is made of a hardware path or a software path). Content includes:

- Meridian SL-1 evolution and Northern Telecom's market position
- Descripticns of sets, modules, and consoles associated with the Meridian SL-1, emphasizing data modules and the new digital telephones
- Descriptions and application overview of Meridian SL-1 features and services
- Hardware overviews on Meridian SL-1M, LE, VLE/XL, N, XN, MS, S, NT and XT in two sub-modules:
  - General discussion — Identification of switch hardware with applications in marketing the Meridian SL-1 (recommended for marketing students)
  - Detailed discussion — Description of switch hardware with specific components and nomenclature identified (recommended for technicians)
- Alternative software path which includes:
  - Digital switch concepts as an overview of hardware
  - Basic Data Base Administration
  - Data Base Lesson: A view of actual loads
- Explanation of sysload, initialization, and data dump: Memory layout and design of all switch types is addressed including page descriptions and maximum addressable ranges
- Overview of traffic terminologies: CCS, grade of service, etc. Applications of these terms to the Meridian SL-1's traffic handling capabilities in addition to a brief synopsis of several traffic schedules
- How to use NTPs: to enable the student to use these resources in the course and on the job

Prerequisites: Fundamentals of Telecommunications (010)*.

* self-paced course

Course #111: X11 Feature Administration

Audience: Support personnel whose position requires that they generate, revise, and interpret office data for Meridian SL-1 features.

Length: 10 days

Course Description: This course is designed to provide the student with the ability to generate, revise and interpret Meridian SL-1 Office Data. Content includes:

- Feature capabilities and parameters
- Information on how to complete required data base forms associated with the Meridian SL-1
- Hands-on practice for generating, revising, implementing, and interpreting office data and features for services
- All basic Meridian SL-1 features and services are covered as well as most optional features. Other 100 series courses describe features not covered in this class. The following is a representative list of optional features which are covered:

  - Attendant Overflow
  - Attendant Administration
  - Automatic Set Relocation
  - Flexible Call Forward No Answer
  - Recorded Attendant Overflow Announcement
  - Call Park
  - New Flexible Code Restriction
  - Stored Number Redial
  - Called Party Control
  - Flexible Hotline
  - Call Detail Recording
  - Office Data Administration System (ODAS)
  - Centralized Attendant Service (CAS)
  - Deluxe Hold
  - Automatic Line Selection
  - Distinctive Ringing
  - Privacy Override
  - Departmental Listed Directory Number
  - Controlled Class of Service
  - Tenant Service
  - Station Category Indication
  - Digital Sets

Prerequisites: Meridian SL-1 Familiarization (500).

Course #121: Electronic Switched Network (ESN)

Audience: Support personnel whose position requires that they generate, revise, and maintain the ESN features.

Length: 10 days

Course Description: This course is designed to provide the student with the ability, using predetermined engineering data, to prepare, install, and maintain ESN node customer data in accordance with applicable NTPs. Content includes:

- Voice networking overview describing the major components of a Private Voice Network
- Definition and description of the elements that make up ESN
- Definition and description of the ESN features and their operation
- Performance of the provisioning and implementation of ESN features in accordance with applicable NTPs
- Description and performance of those activities relative to ESN feature maintenance
- Description and performance of the Network Traffic Measurements

Prerequisites: Meridian SL-1 Familiarization (500), and
X11 Feature Administration (111).
Basic Alternate Route Selection (BARS) (110) is also recommended.

Course #130: Meridian SL-1 LANSTAR Data Products Feature Administration

Audience: Support personnel who have successfully completed X11 Feature Administration (111) and who will be responsible for generating and maintaining customer data on Meridian SL-1 LANSTAR Data Products.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to generate, input, revise and operate Meridian SL-1 LANSTAR data products feature administration. Content includes:

- Introduction to basic data concepts
  - Overview of DP Environment
  - Terminology
  - Local Area Networks
- Introduction to Basic Data Communications
  - Terminology
  - Components of data comm networks
- Meridian SL-1 LANSTAR Data Products
  - Add-On Data Module (ADM)
  - Asynchronous Interface Module (AIM)
  - Asynchronous Interface Line Unit (AILU)
  - Asynchronous/Synchronous Interface Module (ASIM)
  - Digital Telephone Data Options
  - Modem Pooling
  - Multi-Channel Data System (MCDS)
  - Coax Elimination and Switching System
  - IBM Personal Computer Interface
  - 3270 Protocol Converter
  - System 36 Gateway
  - X.25 Gateway
  - Displayphone Plus
  - SL-1 Displayphone
  - Ethernet Gateway
  - Baluns

Prerequisites: X11 Feature Administration (111), and Meridian SL-1 Familiarization (500).

Course #137: X37 Feature Administration

Audience: Support personnel who have successfully completed X11 Feature Administration (111) and who will be responsible for generating and maintaining customer features on a Meridian SL-1 equipped with X37 software.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to generate, input, revise and interpret the X37 feature administration data. Content includes:

- X37 features

  - Background Terminal
  - Automatic Wake-up
  - Room Status
  - Message Registration
  - Controlled Class of Service
  - Flexible Numbering Plan
  - Five Digit Dialing
  - Do-Not-Disturb
  - Flexible Hot Line
  - Supervisory Console
  - Station Category Indication
  - Property Management System Interface

Prerequisites: X11 Feature Administration (111), and
Meridian SL-1 Familiarization (500).

Course #150: Automatic Call Distribution (A-C_2)

Audience: Support personnel who will be responsible for generating, maintaining and interpreting customer data on Meridian SL-1s equipped with ACD software.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to generate, input, revise and interpret the ACD feature data, interpret Management Reports, and perform Load Management functions. Content includes:

- ACD-A Basic Features
  - Incall Key
  - Not Ready Key
  - Agent Lamps
  - Display Agent Key
  - ACD Recorded Announcement
  - Night Treatment
  - Priority Trunks
  - Music-On-Hold
- ACD-B Advanced Features
  - Agent Supervisor Communications
  - Emergency Key
  - Calls Waiting Indicators
  - Observe Agent Key
  - Interflow Key
  - Extended Agent Observe
  - Automatic Overflow
  - Call Forcing
  - Music-On-Delay
- ACD-C_1 Management Reports
  - Management Report Terminals
  - Periodic Management Reports
  - On-going Status Display
  - Daily and System Totals
  - Agent ID Mode
- ACD-C_2 Load Management
- Message Center Applications
  - Any DN Message Center
  - ACD Message Center
  - Attendant Message Center

Prerequisites: X11 Feature Administration (111), and Meridian SL-1 Familiarization (500).

Course #151: Automatic Call Distribution (ACD-D)

Audience: Support personnel who will be responsible for generating and maintaining customer features, and/or installation and maintenance of associated ACD-D auxiliary processor and software.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to define ACD-D reporting options, interpret ACD-D Management Reports, generate, input, revise and maintain ACD-D data base, and perform support tasks required for installation and implementation of software and hardware. Content includes:

- Description of the function and operation of ACD-D
- Description of the various software packages and hardware configurations of ACD-D
- Hands-on practice for establishing ACD-D management report schedules and options
- Hands-on practice for retrieving and interpreting ACD-D management report schedules and options
- Provisioning and implementation of ACD-D feature in accordance with applicable NTPs
- Software and hardware installation procedures

Prerequisites: X11 Feature Administration (111),
Meridian SL-1 Familiarization (500), and
Automatic Call Distribution (A-C_2) (150).

Course #155: ACD (A-C_2) Management

Audience: Personnel who are responsible for managing or supporting an ACD (A-C_2) application.

Length: 3 days

Course Description: This course is designed to provide the student with the ability to manage the student's ACD applications by using the management reports of Package C_1 and the Load Management capabilities of Package C_2. Content includes:

- An overview of ACD Packages A and B to ensure that the student has a good understanding of ACD operation.
  - ACD-A, Basic Features
  - ACD-B, Advanced Features
- ACD-C_1, Management Reports
  - Understanding Report Format
  - Interpreting Report Statistics
  - Determining Management Alternatives
- ACD-C_2, Load Management
  - Hands-on practice to alter the ACD configuration in response to varying ACD traffic loads and customer needs

Prerequisites: Students should be knowledgeable about the student's own ACD application.

Course #156: ACD-D Management

Audience: Personnel who are responsible for managing or supporting an ACD-D application.

Length: 4 days

Course Description: This course is designed to provide the student with the ability to manage the student's ACD-D application by using the supervisor and senior supervisor terminals to retrieve, schedule and interpret management reports. Content includes:

- An overview of ACD Packages A and B to ensure that the student has a good understanding of ACD operation.
  - ACD-A, Basic Features
  - ACD-B, Advanced Features
  - ACD-D, Interface
- ACD-C_2, Load Management
  - Hands-on practice to alter the ACD configuration in response to varying ACD traffic loads and customer needs
- ACD-D Management Reports
  - Understanding report format
  - Hands-on practice for supervisor and senior supervisor functions
  - Hands-on practice for establishing ACD-D report definitions
  - Hands-on practice for retrieving and interpreting ACD-D management reports
  - Determining management alternatives

Prerequisites: Students should be knowledgeable about the student's own ACD application.

Course #171: Meridian SL-1 Traffic Implementation and Interpretation

Audience: Telecommunications managers, customer support personnel, maintenance technicians, and customer service representatives

Length: 3 days

Course Description: This course is designed to provide the student with the ability, using the appropriate NTPs, to set up, print and interpret Meridian SL-1 traffic systems and customer reports, but not network (BARS, ESN) reports. Content includes:

- Loop traffic (intra, inter and total)
- Services (trunk outpulsers, dial tone, etc.)
- Dial tone delay
- Processor load (not emphasized)
- Line traffic
- Junctor group traffic
- Trunk traffic
- Console queue traffic (all consoles as a group)
- Consoles (individual attendant consoles)
- Features (how often specific features are used)
- Time and date
- Setting and using traffic threshold values

Prerequisites: No formal prerequisites required, however, a strong working knowledge of the Meridian SL-1 will help the student gain the full benefit of the course.

Course #071: Meridian SL-1 Traffic (Self-Paced)

Audience: Anyone with the responsibility of analyzing traffic reports.

Length: Approximately 24 - 32 hours — Self-Paced

Course Description: This course is designed to provide the student with the information and practice necessary to perform a general interpretation of Meridian SL-1 traffic reports. Content includes:

- Meridian SL-1 traffic terminology
- System measurement output(s) - descriptions/interpretation
- Customer measurement output(s) - descriptions/interpretation
- Threshold violation outputs - descriptions/interpretation
- Exercises reinforcing the subject matter learned throughout the course
- Self-check problems to check student's overall progress throughout the course

Upon completion of this course, the student will be able to:

- List the procedures required to generate traffic reports.
- Identify data on traffic reports that indicate less than ideal switch operation.
- Select possible solutions for rectifying traffic-related problems.
- Determine the cause(s) of threshold violations.
- List the procedures required to query thresholds.
- Interpret the meaning of warning messages.

Prerequisites: Introduction to the Meridian SL-1 (051)*, or
Meridian SL-1 Familiarization (500).
Meridian SL-1 System Engineering (070)* is recommended.

Material Required: Calculator

NOTE: The course material consists of a self-paced booklet with the appropriate NTP section. The calculator is NOT provided.

* self-paced course

Course #022: Meridian SL-1 NT and XT Differences Document and Video*

Audience: Anyone who presently works with the Meridian SL-1 N or XN and needs to transfer those skills to the Meridian SL-1 NT and XT.

Length: Approximately 2½ hours — Self-Paced

Course Description: This course is designed to provide the student with the ability to identify the new hardware introduced by the common equipment enhancement program on the Meridian SL-1 NT and XT, and to establish and describe the relationships and differences between the Meridian SL-1 N and NT and the Meridian SL-1 XN and XT. Content includes:

- Differences in hardware between the Meridian SL-1 N and NT, including shelves, circuit packs, power and cabling
- Differences in hardware between the Meridian SL-1 XN and XT, including shelves, circuit packs, power and cabling
- Review of the new software commands and responses associated with service changes and diagnostics in the Meridian SL-1 NT and XT

Prerequisites: Meridian SL-1 N/NT Installation and Operation (201), and
Meridian SL-1 XN/XT Installation and Operation (202)

* For students who have completed 201, 202, or 203 prior to August 19, 1986.

Course #201: Meridian SL-1 N/NT Installation and Operation

Audience: Installation and maintenance technicians

Length: 10 days

Course Description: This course is designed to provide the student with a working knowledge of the operation and installation of the Meridian SL-1 N/NT. This enables the student to properly install, inspect and test a preassembled Meridian SL-1 N/NT and to perform hardware expansion and changes to an existing Meridian SL-1 N/NT. Content includes:

- System organization and operational aspects to include:
  - CPU
  - Memory
  - Networks
  - Peripheral equipment
  - Power equipment
  - Mass storage unit
  - Magnetic tape unit
- Hands-on practice for installing, testing and inspecting a preassembled Meridian SL-1 N/NT
- Information for expanding a Meridian SL-1 N/NT to meet customer's requirements
- Hands-on training for installing and testing Meridian SL-1 station equipment to include:
  - SL-1 sets
  - 500/2500 sets
  - Digital sets
  - Add-on-modules
  - Speakerphones

Prerequisites: Basic Telephony for Technicians (050)* or equivalent experience.
Meridian SL-1 Familiarization (500) is recommended.

* self-paced course

Course #202: Meridian SL-1 XN/XT Installation and Operation

Audience: Installation and maintenance technicians

Length: 10 days

Course Description: This course is designed to provide the student with a working knowledge of the operation and installation of the Meridian SL-1 XN/XT. This enables the student to properly install, inspect and test a preassembled Meridian SL-1 XN/XT and to perform hardware expansion and changes to an existing Meridian SL-1 XN/XT. Content includes:

- System organization and operational aspects to include:
  - CPU
  - Memory
  - Networks
  - Peripheral equipment
  - Power equipment
  - Mass storage unit
  - Magnetic tape unit
- Hands-on practice for installing, testing and inspecting a preassembled Meridian SL-1 XN/XT to meet customer's requirements
- Hands-on training for installing and testing Meridian SL-1 station equipment to include:
  - SL-1 sets
  - 500/2500 sets
  - Digital sets
  - Add-on-modules
  - Speakerphones

Prerequisites: Basic Telephony for Technicians (050)* or equivalent experience.
Meridian SL-1 Familiarization (500) is recommended.

* self-paced course

Course #203: Meridian SL-1 MS/S Installation and Operation

Audience: Installation and maintenance technicians

Length: 10 days

Course Description: This course is designed to provide the student with a working knowledge of the operation and installation of the Meridian SL-1 MS/S. This enables the student to properly install, inspect and test a preassembled Meridian SL-1 MS/S and to perform hardware expansion and changes to an existing Meridian SL-1 MS/S. Content includes:

- System organization and operational aspects to include:
  - CPU
  - Memory
  - Networks
  - Peripheral equipment
  - Power equipment
  - Mass storage unit
  - Magnetic tape unit
- Hands-on practice for installing, testing and inspecting a preassembled Meridian SL-1 MS/S
- Information for expanding a Meridian SL-1 MS/S to meet customer's requirements
- Hands-on training for installing and testing Meridian SL-1 station equipment to include:
  - SL-1 sets
  - 500/2500 sets
  - Digital sets
  - Add-on-modules
  - Speakerphones

Prerequisites: Basic Telephony for Technicians (050)* or equivalent experience.
Meridian SL-1 Familiarization (500) is recommended.

* self-paced course

Course #210: Meridian SL-1 Maintenance

Audience: Maintenance personnel who are responsible for maintenance of Meridian SL-1s.

Length: 10 days

Course Description: This course is designed to provide the student with the specified requirements for maintenance of the following Meridian SL-1 types: M, LE, VLE/XL, MS, S, N, XN, NT, XT. Content includes:

- Information and hands-on practice on the maintenance requirements for Meridian SL-1s
- Information and hands-on practice on the use of maintenance procedures as defined in the NTPs
- Information and hands-on practice in the use of maintenance diagnostic overlay programs
- Information and hands-on practice on fault detection, isolation and repair of Meridian SL-1s

Prerequisites: Basic Telephony for Technicians (050)*, and
Meridian SL-1 Installation (201, 202, or 203).
Meridian SL-1 Familiarization (500) is recommended.
X11 Feature Administration (111) is recommended.

NOTE: Although it is not a required prerequisite, the training center highly recommends that the student have successfully completed X11 Feature Administration (111) prior to enrolling in Meridian SL-1 Maintenance.

* self-paced course

Course #211: Meridian SL-1 N/NT Maintenance

Audience: Maintenance personnel who are responsible for maintenance of Meridian SL-1 N/NT.

Length: 5 days

Course Description: This course is designed to provide the student with the specified requirements for maintenance of the Meridian SL-1 N/NT. Content includes:

- Information and hands-on practice on the maintenance requirements for Meridian SL-1 N/NT
- Information and hands-on practice on the use of maintenance procedures as defined in the NTPs
- Information and hands-on practice in the use of maintenance diagnostic overlay programs
- Information and hands-on practice on detecting, isolating and clearing faults in Meridian SL-1 N/NT
- Information and hands-on practice on parallel reload procedures
- Information and hands-on practice on the Automatic Trunk Maintenance feature

Prerequisites: Basic Telephony for Technicians (050)*, and
Meridian SL-1 Installation (201, 202, or 203).
Meridian SL-1 Familiarization (500) is recommended.
X11 Feature Administration (111) is recommended.

NOTE: Although it is not a required prerequisite, the training center highly recommends that the student have successfully completed X11 Feature Administration (111) prior to enrolling in Meridian SL-1 N/NT Maintenance.

* self-paced course

Course #212: Meridian SL-1 XN/XT Maintenance

Audience: Maintenance personnel who are responsible for maintenance of Meridian SL-1 XN/XT.

Length: 5 days

Course Description: This course is designed to provide the student with the specified requirements for maintenance of the Meridian SL-1 XN/XT. Content includes:

- Information and hands-on practice on the maintenance requirements for Meridian SL-1 XN/XT
- Information and hands-on practice on the use of maintenance procedures as defined in the NTPs
- Information and hands-on practice in the use of maintenance diagnostic overlay programs
- Information and hands-on practice in detecting, isolating and clearing of faults in Meridian SL-1 XN/XT
- Information and hands-on practice on parallel reload procedures
- Information and hands-on practice on the Automatic Trunk Maintenance feature

Prerequisites: Basic Telephony for Technicians (050)*, and
Meridian SL-1 Installation (201, 202, or 203).
Meridian SL-1 Familiarization (500) is recommended.
X11 Feature Administration (111) is recommended.

NOTE: Although it is not a required prerequisite, the training center highly recommends that the student have successfully completed X11 Feature Administration (111) prior to enrolling in Meridian SL-1 XN/XT Maintenance.

* self-paced course

Course #213: Meridian SL-1 MS/S Maintenance

Audience: Maintenance personnel who are responsible for maintenance of Meridian SL-1 MS/S.

Length: 5 days

Course Description: This course is designed to provide the student with the specified requirements for maintenance of the Meridian SL-1 MS/S. Content includes:

- Information and hands-on practice on the maintenance requirements for Meridian SL-1 MS/S
- Information and hands-on practice on the use of maintenance procedures as defined in the NTPs
- Information and hands-on practice in the use of maintenance diagnostic overlay programs
- Information and hands-on practice in detecting, isolating and clearing of faults in Meridian SL-1 MS/S
- Information and hands-on practice on parallel reload procedures
- Information and hands-on practice on the Automatic Trunk Maintenance feature

Prerequisites: Basic Telephony for Technicians (050)*, and
Meridian SL-1 Installation (201, 202, or 203).
Meridian SL-1 Familiarization (500) is recommended.
X11 Feature Administration (111) is recommended.

NOTE 1: Although it is not a required prerequisite, the training center highly recommends that the student have successfully completed X11 Feature Administration (111) prior to enrolling in Meridian SL-1 MS/S Maintenance.

NOTE 2: Disk drive information is available in the 2nd quarter of 1987.

* self-paced course

Course #242: Meridian SL-1 Trunks and Transmission

Audience: Installation/maintenance technicians and Technical Support Engineers

Length: 10 days

Course Description: This course is designed to provide the student with the ability to install and maintain trunks and to introduce the terminology used in transmission and trunking concepts used with the Meridian SL-1. Content includes:

- Factors affecting transmission
- Types of trunks
- Telephone networks
- Media
- Interfaces
- Installation and maintenance data interpretation
- Troubleshooting transmission trunks

Prerequisites: Meridian SL-1 Installation (201, 202, or 203), and Meridian SL-1 Maintenance (210, 211, 212, or 213).

Course #270: Meridian SL-1 Hardware and LANSTAR Data Products Provisioning

Audience: Sales engineers and systems engineers

Length: 10 days

Course Description: This course is designed to provide the student with the ability to engineer integrated voice/data systems and use and interpret autoquote. Content includes:

- Meridian SL-1 System architecture (first week begins with this topic)
- Overview of Meridian SL-1 hardware
- Configuration overview of Meridian SL-1, MS, S, N, XN, NT and XT
- Meridian LANSTAR data products overview
- Engineering/Design Methodology (second week begins with this topic)
- Recording information for provisioning
- Terminal, console, trunk growth forecasting
- System load engineering
- Peripheral equipment provisioning
- CPU estimated real-time usage
- Memory provisioning
- Autoquote techniques
- Post sale overview of related engineering activities

Prerequisites: Meridian SL-1 Familiarization (500).

Materials Required: Calculators

NOTE: Calculators are provided for use in classroom only.

Course #070: Meridian SL-1 Systems Engineering (Self-Paced)

Audience: Anyone with the responsibility of determining hardware and software requirements of a Meridian SL-1 and load balancing the specified system.

Length: Approximately 13 - 22 hours — Self-Paced

Course Description: This course is designed to provide the student with an understanding of the steps performed to determine equipment and memory requirements, to specify a Meridian SL-1 type, to configure and load balance a system to meet specified grade of service requirements. Content includes:

- General information defining terms used throughout the course
- Step-by-step procedures guiding the student through the provisioning/engineering process
- One exercise providing practice using the process
- Self-check problems reinforcing specific provisioning steps

Prerequisites: Introduction to the Meridian SL-1 (051)*, or
Meridian SL-1 Familiarization (500) or equivalent experience.
A basic telephony background (i.e., general understanding of trunks, grade of service, etc.) is recommended.

Materials Required: Calculator

NOTE: The course material consists of a self-paced booklet with appropriate NTP sections. The calculator is NOT provided.

* self-paced course

Course #300: Omnifacts — CDR Introduction and Operation

Audience: Support personnel who are required to install and implement Omnifacts—CDR software.

Length: 3 days

Course Description: This course is designed to provide the student with a description of the function and operation of an Omnifacts—CDR System, and the ability to perform the support tasks required for installation and implementation of Omnifacts—CDR software. Content includes:

- Description of the functions and operation of Omnifacts—CDR
- Description of the various software packages and hardware configuration of Omnifacts—CDR
- Description and performance of hardware operating procedures
- Description and performance of software installation and implementation
- Description and performance of system operation verification

Prerequisites: Meridian SL-1 Familiarization (500), and
X11 Feature Administration (111).

Availability: Upon demand of 5 students or more.

NOTE: 4.1-S Systems Operations for Northern Telecom Processor Model 585 (available through NT Data Systems Division) is highly recommended.

Course #301: Integrated Message System (IMS) Introduction and Operations

Audience: Customer site administrators and support personnel who are responsible for IMS.

Length: 4 days

Course Description: This course is designed to provide the student with a description of the terms and concepts associated with IMS and the ability to perform telset user, message attendant, and system administrator functions. Content includes:

- Description of the features and functions of IMS
- Performance of telset operation
- Performance of message attendant operation
- Description and performance of system administrator functions and operations
- Description of data gathering steps
- Description of database input to Meridian SL-1
- Description and performance of the installation and implementation of IMS in the Northern Telecom Processor, Model 585

Prerequisites: Meridian SL-1 Familiarization (500), and
X11 Feature Administration (111).

Availability: Upon demand of 5 students or more.

NOTE: 4.1-S Systems Operations for Northern Telecom Processor Model 585 (available through NT Data Systems Division) is highly recommended.

Course #304: Meridian SL-1 Protocol Converters

Audience: Technical support personnel who are responsible for installation and maintenance of protocol converters.

Length: 3 days

Course Description: This course is designed to provide the student with the ability to install, test, diagnose, and maintain protocol converters. Content includes:

- Description and demonstration of appropriate test equipment
- Descriptions, functions, operations, installation and testing of the following Northern Telecom equipment:
  - Bisync Protocol Converter
  - SNA/SDLC Protocol Converter
- Northern Telecom System 36 Gateway and X.25 Gateway will be added to this course in the near future. Course length will be extended as necessary. Verify course length at time of registration.

Prerequisites: Meridian SL-1 Installation (201, 202, or 203), and Introduction to Data Communications (400).

Course #305: Meridian SL-1 LANSTAR Data Products Installation and Maintenance

Audience: Technical support personnel who are responsible for installation and maintenance of Meridian SL-1 LANSTAR Data Products.

Length: 10 days

Course Description: This course is designed to provide the student with the ability to install, test, diagnose, and maintain Meridian SL-1 LANSTAR Data Products in accordance with the NTPs. Content includes:

- Description of Meridian SL-1 LANSTAR Data Products' functions, operation, and use
- Performance of Meridian SL-1 LANSTAR Data Products operation
- Description and performance of data communication test equipment usage
- Description and performance of the Meridian SL-1 LANSTAR Data Products installation and maintenance procedures on the following equipment:
  - Add-On Data Module (ADM)
  - Data Line Card (DLC)
  - Asynchronous Interface Module (AIM)
  - Asynchronous Interface Line Unit (AILU)
  - Asynchronous Interface Line Card (AILC)
  - Asynchronous/Synchronous Interface Module (ASIM)
  - Modems
  - Multichannel Data System (MCDS)
  - Personal Computer Interface Card (PCIC)
  - Apple MacIntosh Interface
  - Displayphones

Prerequisites: Meridian SL-1 Installation (201, 202, or 203), and Introduction to Data Communications (400).

Course #306: Meridian SL-1 Digital Interface Equipment (Including Coax Elimination)

Audience: Technical support personnel who are responsible for installation and maintenance of digital interface equipment.

Length: 5 days

Course Description: This course is designed to provide the student with the ability to install, test, diagnose and maintain Meridian SL-1 Digital Interface equipment. Content includes:

- Descriptions, functions, operations, installation and testing of the following equipment:
  - Digital Trunk Interface (DTI)
  - Computer-to-PBX Interface (CPI)
  - Multichannel Coax System (MCCS)
  - Coax Interface Module (CIM)
- Description and use of appropriate test equipment

Prerequisites: Meridian SL-1 Installation (201, 202, or 203), and
Introduction to Data Communications (400).
Meridian SL-1 LANSTAR Data Products Installation and Maintenance (305) is recommended.

Course #307: Integrated Voice Message System (IVMS) Administration

Audience: Support personnel, customer site administrators, and end-user trainers

Length: 3 days

Course Description: This course is designed to provide the student with a working knowledge of the operation for the IVMS product. Content includes:

- A general overview of IVMS hardware
- User/Subscriber call procedures
- IVMS specifications and system administrator functions
- Database requirements for the Meridian SL-1 Circuit Switch Equipment
- VMS database requirements and activity reports
- Hands-on lab is provided to ensure course content and objectives are met.

Prerequisites: Meridian SL-1 Familiarization (500).

Course #308: Integrated Voice Message System (IVMS) Installation and Maintenance

Audience: Technicians

Length: 5 days

Course Description: This course is designed to provide the student with a working knowledge of the operation for the IVMS product. This enables the student to perform all user/subscriber functions; provides information about installation and maintenance procedures for both software and hardware; familiarizes the student with the IVMS major assemblies; and provides hands-on practice for inspecting, installing, and testing preassembled VMS system. Content includes:

- Detailed overview of IVMS hardware, to subassembly level
- User/Subscriber call procedures
- IVMS specifications and system administrator functions
- Database requirements for the Meridian SL-1 Circuit Switch Equipment
- VMS database requirements and activity reports
- VMS hardware/software installation procedures
- Meridian SL-1 hardware/software installation procedures in conjunction with the IVMS product
- Post installation testing

Prerequisites: Meridian SL-1 Familiarization (500), and/or
Meridian SL-1 Installation (201, 202, 203).

Course #310: TRU Call Detail Recording Administration

Audience: Customers

Length: 4 days

Course Description: This course is designed to provide the student with the knowledge to enter and maintain the TRU customer database and to generate CDR and traffic/billing reports. Content includes:

- DOS Overview
- Basic Principles of Call Detail Recording
- TRU Overview
- Basic TRU Recording Software
- Optional TRU Software

Prerequisites: Working knowledge of Meridian SL-1.

Course #311: TRU Call Detail Recording Installation and Operation

Audience: Hardware engineers and customer service representatives

Length: 5 days

Course Description: This course is designed to provide the student with the knowledge to install the TRU hardware and software, and assist the customer in entering his database and using the TRU features (i.e., report generation, costing, etc.). Content includes:

- DOS Overview
- SL-1 Call Detail Recording Overview
- TRU Overview
- Basic TRU Software Checkout
- TRU Installation
- Optional Software Checkout

Prerequisites: Working knowledge of Meridian SL-1.
Basic DOS knowledge highly recommended.

MERIDIAN SL-100 COURSES

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Training Maps

Training maps are graphic illustrations of the sequence of a given set of courses. The training maps show the **Recommended Training Curriculum** for various representative job functions. By using one of these maps, a student can determine what courses are available to help him/her perform a range of job related tasks and activities. The Course Description for each course shown on the map will provide the information needed to determine the specific knowledge and skills to be addressed in that course.

If your job includes:

- Making company financial and staffing decisions for the establishment of a telecommunications organization

Here are the recommended training courses to assist you in performing those tasks:

System Management Overview	350

Training Map

If your job includes:

- Managing personnel responsible for operating and maintaining a telecommunications organization

Here are the recommended training courses to assist you in performing those tasks:

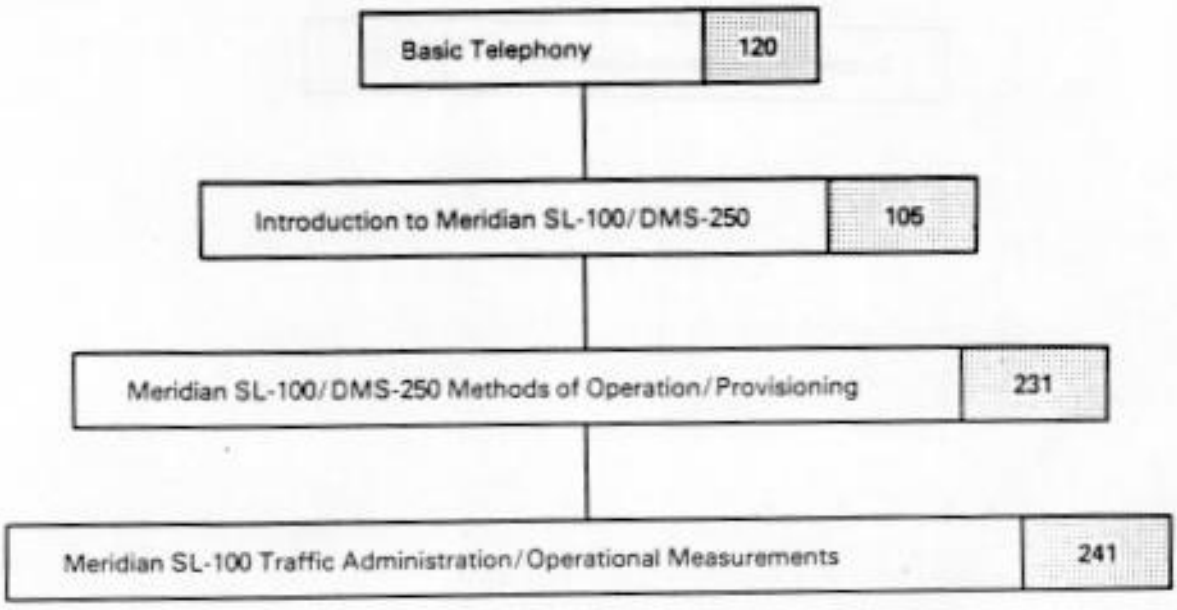
System Management Operations	351

Training Map

If your job includes:

– Provisioning the Meridian SL-100

Here are the recommended training courses to assist you in performing those tasks:

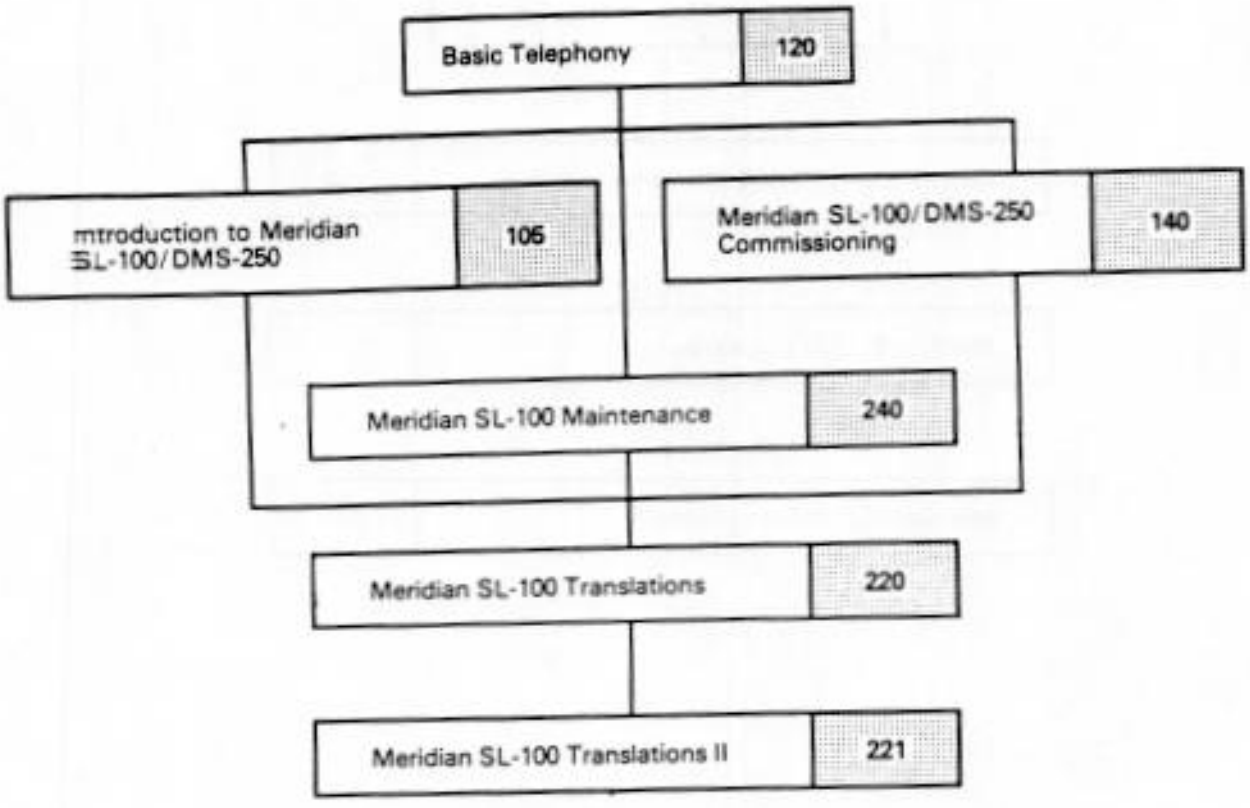


Training Map

If your job includes:

– Data Base Management of Meridian SL-100

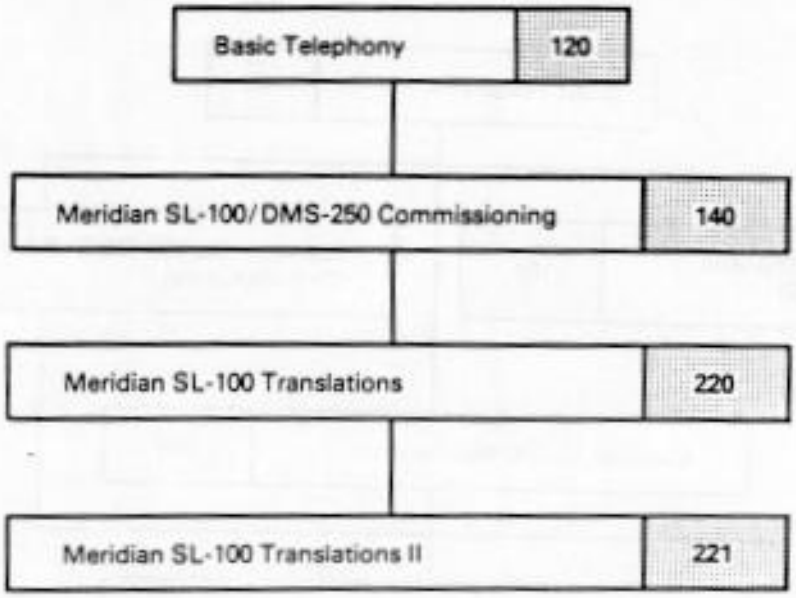
Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

– Commissioning the Meridian SL-100

Here are the recommended training courses to assist you in performing those tasks:

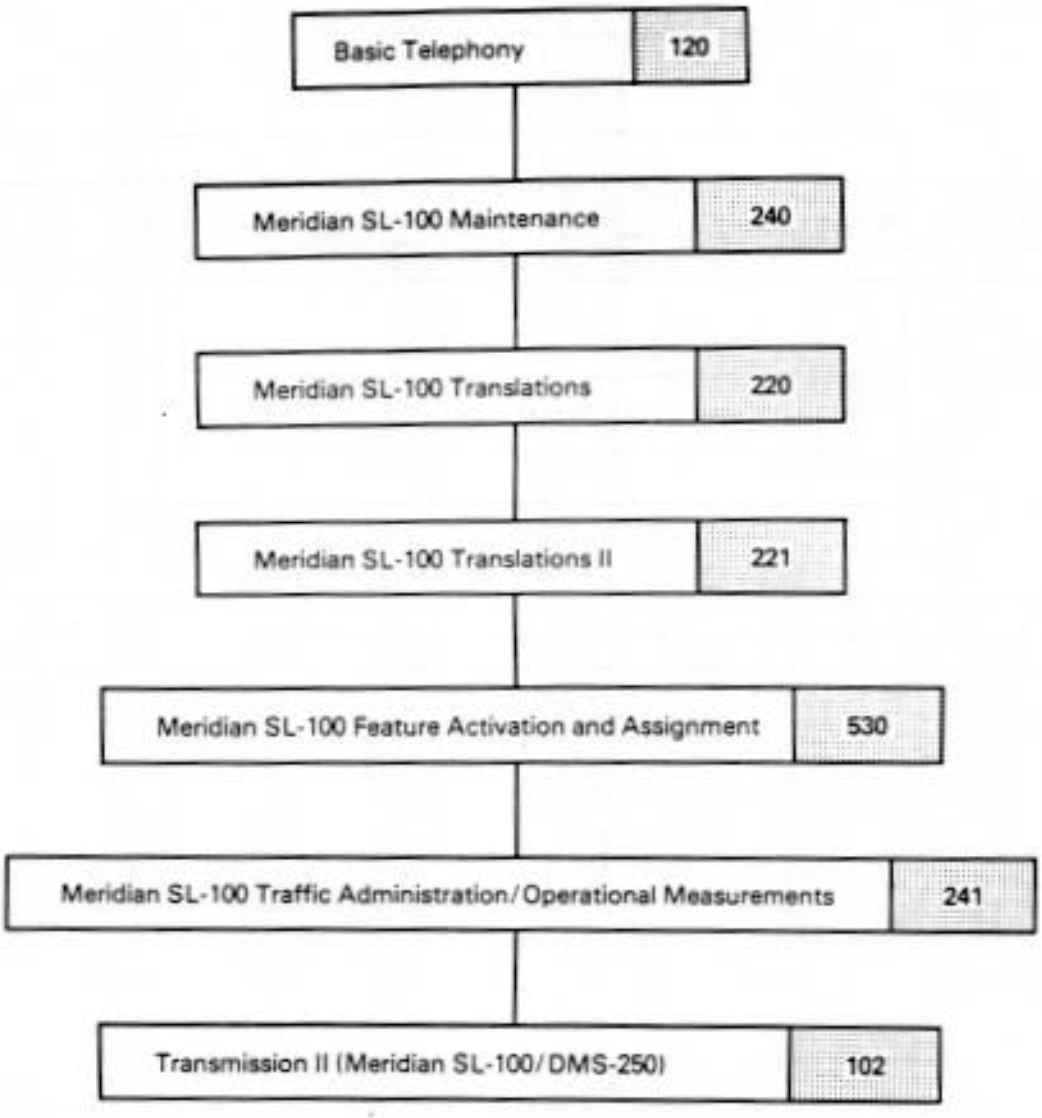


Training Map

If your job includes:

– Maintaining the Meridian SL-100

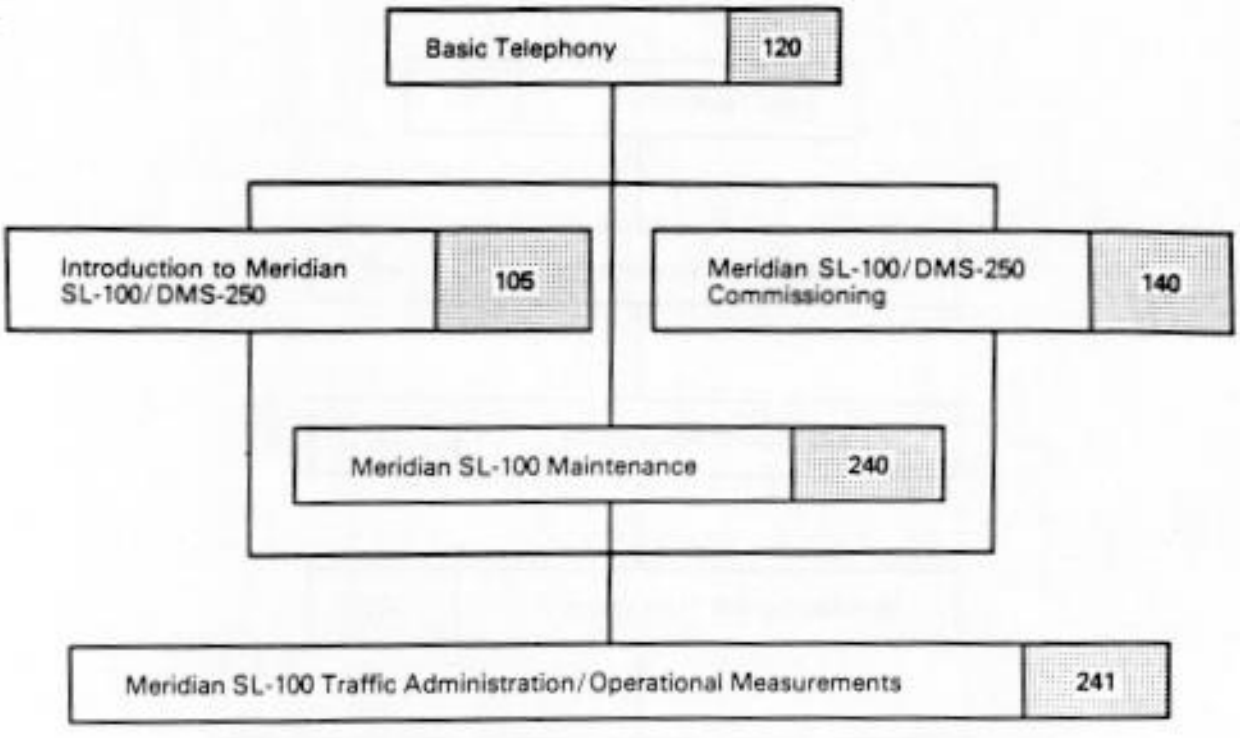
Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Performing traffic studies and monitoring switch/service performance

Here are the recommended training courses to assist you in performing those tasks:

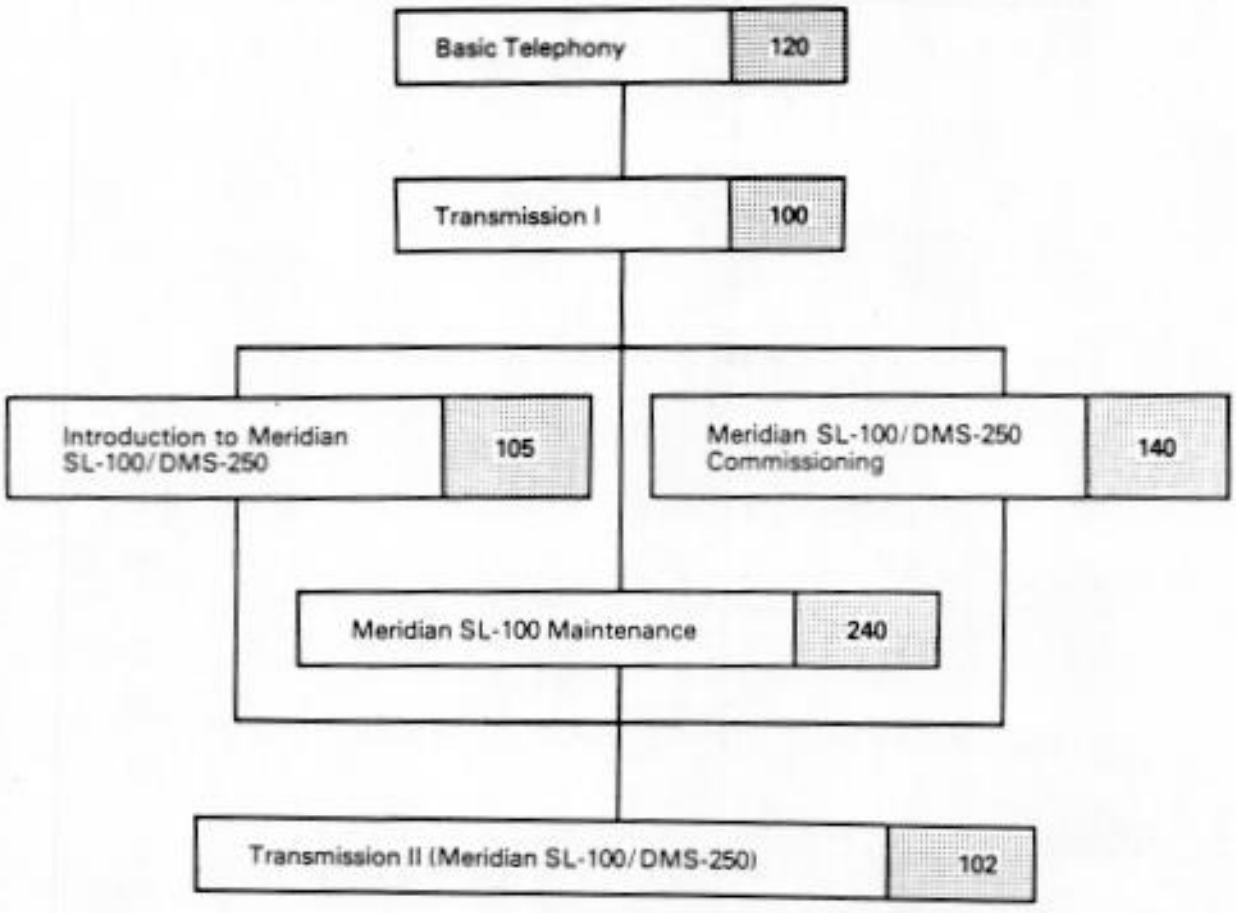


Training Map

If your job includes:

- Maintaining, troubleshooting, and using trunking and transmission facilities and equipment related to the Meridian SL-100

Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Coordinating your department's station survey data

Here are the recommended training courses to assist you in performing those tasks:

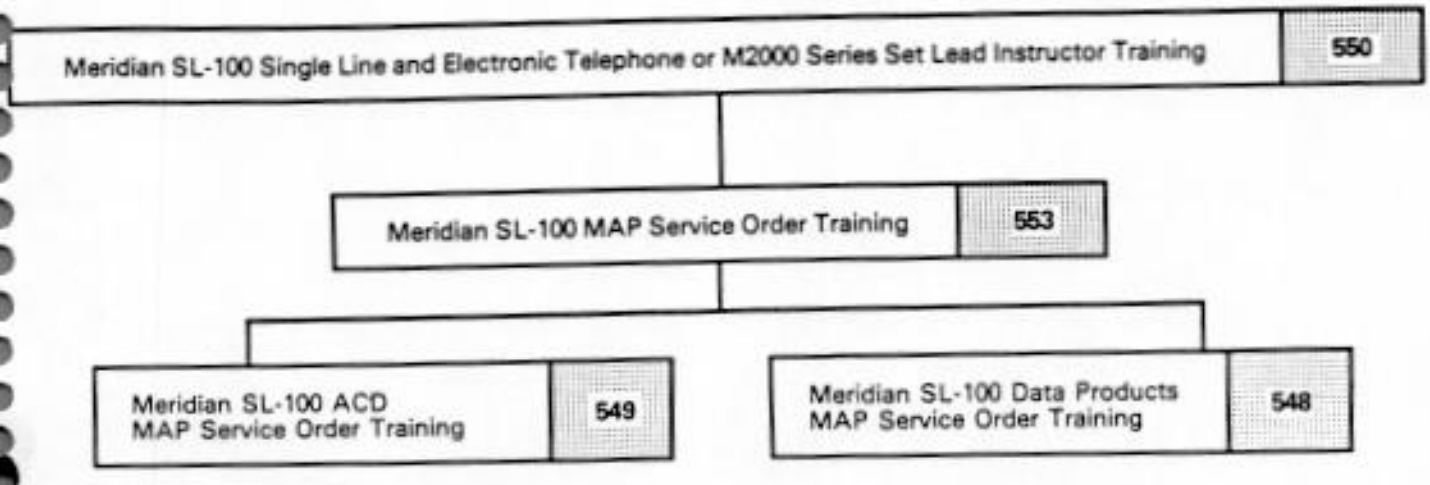
Meridian SL-100 Department Managers' Orientation	510

Training Map

If you are a telecommunications staff member and your job includes:

- Making data base moves and changes

Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Teaching SCOPE DIAL personnel how to use telephone station equipment

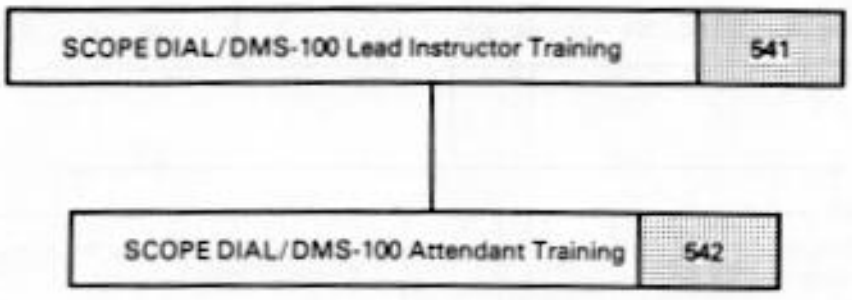
Here are the recommended training courses to assist you in performing those tasks:

SCOPE DIAL/DMS-100 Lead Instructor Training	541

If your job includes:

— Being a SCOPE DIAL Attendant

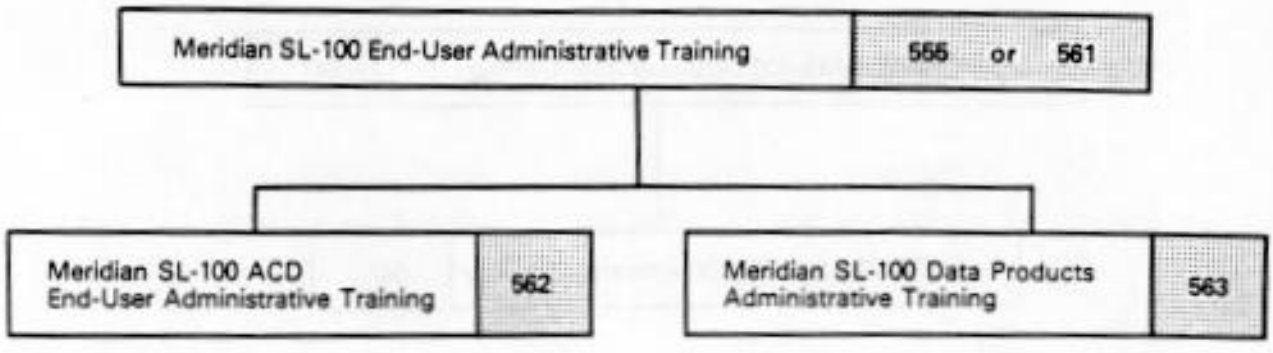
Here are the recommended training courses to assist you in performing those tasks:



If your job as a manager includes:

- Making data base, feature package and record keeping decisions

Here are the recommended training courses to assist you in performing those tasks:

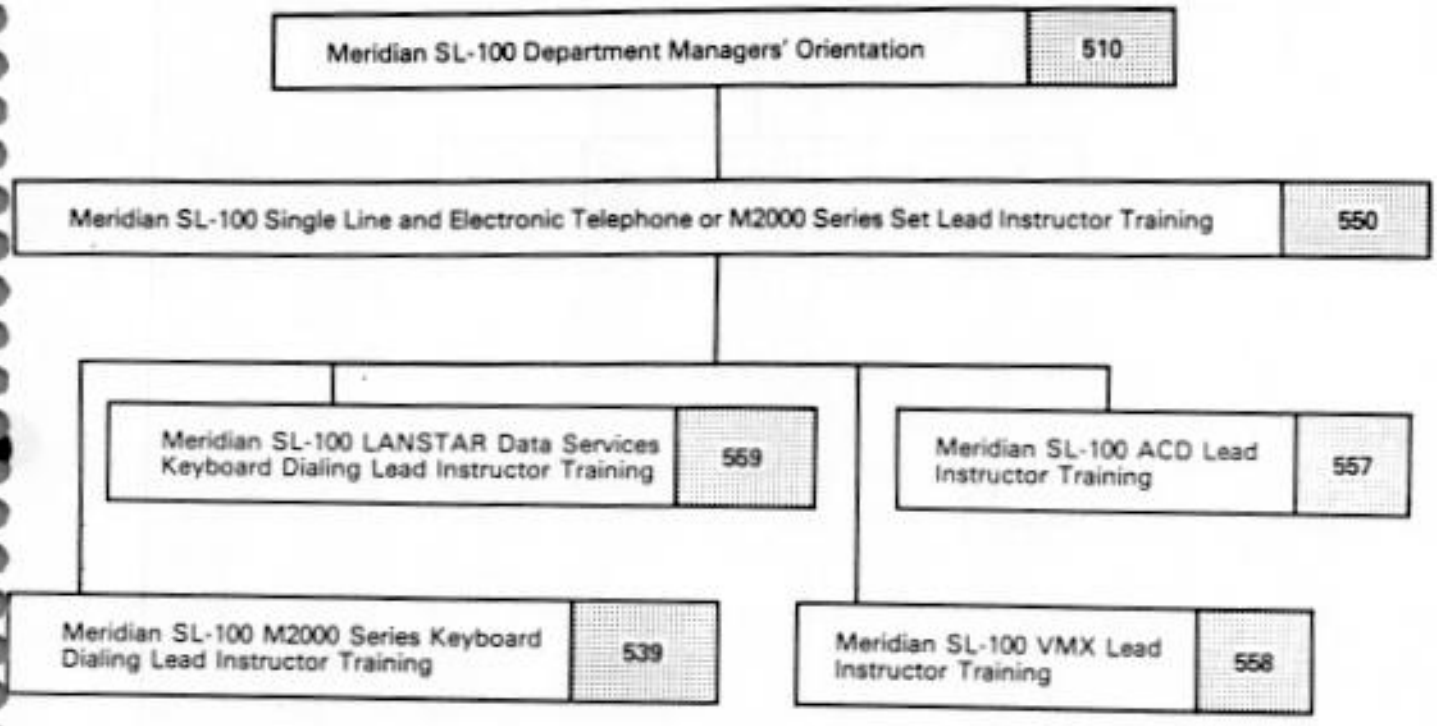


Training Map

If your job includes:

- Training personnel how to use single line sets, electronic telephone sets, M2000 sets, ACD sets, data units, and perform keyboard dialing

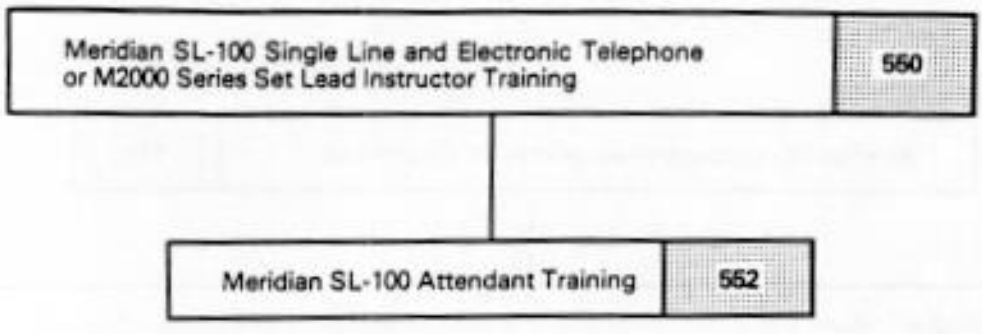
Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Being a Meridian SL-100 Attendant

Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Collecting station survey data and assisting the Lead Customer Service Representative (CSR)

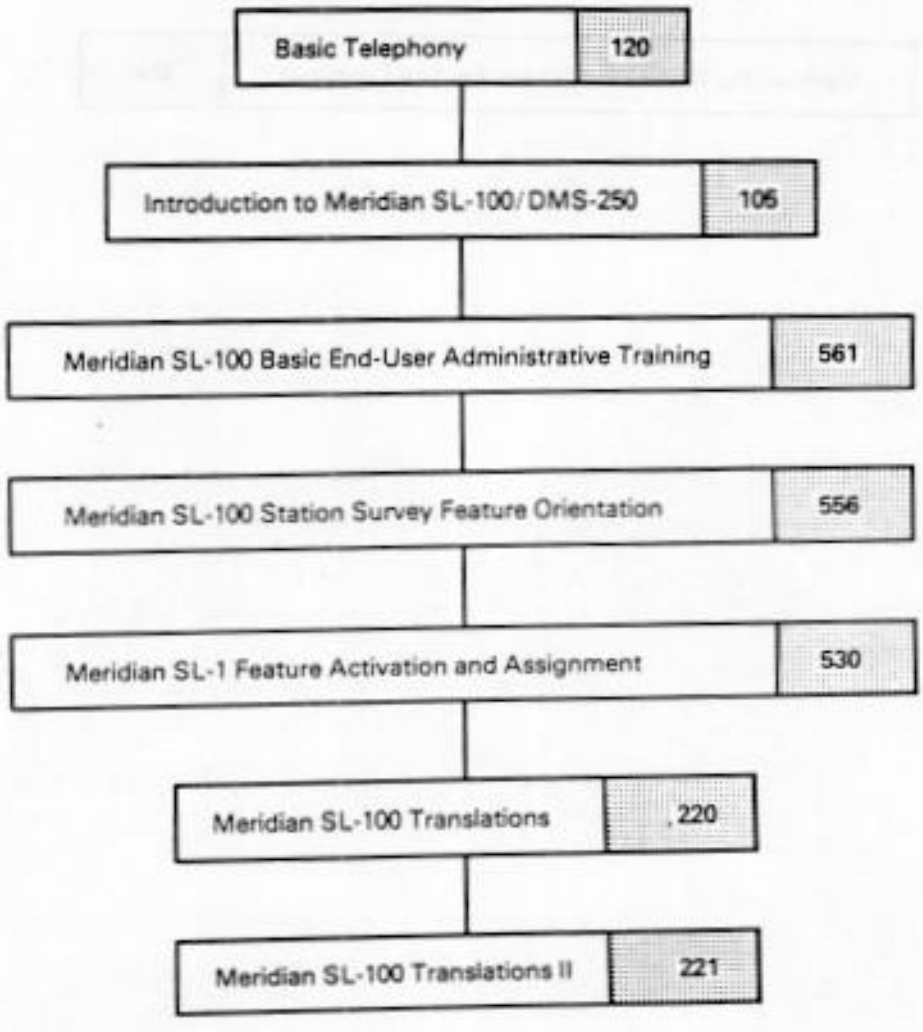
Here are the recommended training courses to assist you in performing those tasks:

Meridian SL-100 Station Survey Feature Orientation	556

If you are a Lead CSR and your job includes:

— Being responsible for station survey collection, feature assignment, and data base modifications

Here are the recommended training courses to assist you in performing those tasks:



* If Meridian SL-100 Advanced End-User Administrative Training (555) is taken, the Meridian SL-100 Customer Service Representative Workshop (560) should be taken instead of Meridian SL-100 Station Survey Feature Orientation (556).

Course #231: Meridian SL-100/DMS-250 Methods of Operation/Provisioning

Audience: Personnel directly involved in provisioning the Meridian SL-100/DMS-250 systems.

Length: 10 days

Schedule: Students should be scheduled in this course just prior to the "CI" (Customer Information) meeting with NTI/IOS Engineering.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with a basic technical system knowledge of the function and operation of the Meridian SL-100/DMS-250 systems. Upon completion of this course, the student will be able to:

- Explain basic digital concepts used in the Meridian SL-100/DMS-250.
- Describe the theory of Meridian SL-100/DMS-250 operations.
- Identify the function and location of Meridian SL-100/DMS-250 hardware.
- Explain the call processing steps for an Intra-Office call.
- Identify traffic sensitive components.
- Explain the two major factors used in determining CCS.
- Complete selected Mini-CIs required for determining equipment provisioning, based on traffic and physical requirements.

Prerequisites: Basic Telephony (120), and
Introduction to Meridian SL-100/DMS-250 (105).

Course #240: Meridian SL-100 Maintenance

Audience: Technicians responsible for the maintenance and troubleshooting of the Meridian SL-100.

Length: 25 days

Schedule: Students should start this course approximately two weeks prior to "D" date (System Delivery).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides the technical knowledge and skills required to properly operate and maintain Northern Telecom's Meridian SL-100 systems in the customer's environment. Upon completion of this course, the student will be able to:

- Identify, locate, and describe the operation of the major components of the Meridian SL-100.
- Use all supporting documentation to reference applicable maintenance procedures and practices.
- Perform selected basic procedures required to operate the Meridian SL-100.
- Recognize faults in Meridian SL-100 operation and isolate faults to the appropriate testing level.
- Perform manual and automatic line and trunk testing.
- Correct equipment faults by replacing faulty components at the appropriate level, using maintenance procedures and log reports.
- Use applicable OMs and special reports to localize equipment errors and failures.

Prerequisites: Basic Telephony (120).
A minimum of one year experience in telephone switching systems or carrier systems.

Course #220: Meridian SL-100 Translations

Audience: Personnel directly responsible for data base management relating to the Meridian SL-100.

Length: 10 days

Schedule: Students should be scheduled to complete this course approximately eight weeks prior to "D" date (System Delivery).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to familiarize the student with the fundamental methods of preparing a system data base. Upon completion of this course, the student will be able to:

- Locate and use the documentation pertinent to translations procedures.
- List the information that must be gathered before initial translations forms/tables are prepared.
- Identify the contents of relevant translations forms and tables and their application in call processing.
- Provided with a dailing plan and trunking diagram, complete and troubleshoot the data fill for these associations:
  - Line to Line,
  - Line to Trunk,
  - Trunk to Line, and
  - Features.

Prerequisites: Basic Telephony (120), and
Introduction to Meridian SL-100/DMS-250 (105), or
Meridian SL-100 Maintenance (240), or
Meridian SL-100/DMS-250 Commissioning (140).

Course #221: Meridian SL-100 Translations II

Audience: Personnel directly responsible for data base management relating to the Meridian SL-100.

Length: 5 days

Schedule: Students should be scheduled to complete this course after the system has gone into service.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with the advanced methods of data base management. Upon completion of this course, the student will be able to:

- Design and input a data base for a Meridian SL-100 that supports the following features:
  - Preset/Meet-Me Conferencing,
  - Line Screening Codes,
  - Trunk Queuing,
  - Network Speed Calling,
  - Time-of-Day Routing/NCOS,
  - Conditional Routing,
  - Voice Messaging Exchange,
  - Cut-Through Dialing,
  - Electronic Switched Network, and
  - Automatic Call Distribution.
- Diagnose and correct a faulty data base.
- Describe what the Feature Packages for your site can do.

Prerequisites: Basic Telephony (120), and
Introduction to Meridian SL-100/DMS-250 (105), or
Meridian SL-100 Maintenance (240), or
Meridian SL-100/DMS-250 Commissioning (140), and
Meridian SL-100 Translations (220).

Course #241: Meridian SL-100 Traffic Administration/Operational Measurements

Audience: Personnel directly responsible for traffic studies and monitoring of switch/service performance.

Length: 5 days

Schedule: Students should be scheduled in this course approximately six weeks' prior to the "IS" date (In-service).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to familiarize the student with the Operational Measurement (OM) data tables and their associated log reports. The course will concentrate on OM report outputs, traffic management and reallocation, service and performance indicators, and report studies and utilization. Upon completion of this course, the students will be able to:

- Define the feature called Operational Measurements (OM) and briefly describe its organization, documentation, report layout, and its purpose.
- Associate specific call processing events with specific OM registers and groups.
- Use OMs to determine the following:
  - Kinds and amount of traffic that your switch is asked to handle,
  - If the grade of service that your users are experiencing is as good as what was originally planned for (engineered),
  - Possible need for maintenance (preventive or corrective actions), and
  - Trends regarding the health of your switch for management reports.
- Set up and route various OM reports to a terminal device.

Prerequisites: Basic Telephony (120), and
Introduction to Meridian SL-100/DMS-250 (105), or
Meridian SL-100 Maintenance (240), or
Meridian SL-100/DMS-250 Commissioning (140).

Course #340: Meridian SL-100 LANSTAR Data Services - Operations and Maintenance

Audience: Field Engineers, Commissioners, and Customers involved with the LANSTAR Data Services product line.

Length: 5 days

Schedule: Students can be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with the information necessary for the installation and maintenance of the various new forms of Data Products now being offered with the Meridian SL-100. Upon completion of this course, the student will be able to:

- Describe the operation of the following:
  - Low Speed Data Unit (LSDU),
  - Asynchronous Interface Module (AIM),
  - Asynchronous Interface Line Unit (AILU),
  - Computer/PBX Interface, and
  - Coax Eliminator.
- Describe the function of modem pooling.
- Perform data base editing in conjunction with data product operations.
- Recognize trouble indicators and isolate faults to the appropriate maintenance level.

Prerequisites: Basic Telephony (120), and
Meridian SL-100 Maintenance (240), or
Meridian SL-100/DMS-250 Commissioning (140).

Course #350: System Management Overview

Audience: Management personnel responsible for making financial and staffing decisions.

Length: 2 days

Schedule: Students should be scheduled to attend class immediately after contract signing.

Location: Northern Telecom Inc. Training Center, Richardson, TX or Customer Site*

Course Description: This course provides the knowledge and recommendations necessary to set up a system management program. Upon completion of this course, the student will be able to:

- List and describe the various areas that comprise an effective telecommunications organization.
- List the skills and training required by the telecommunications personnel.
- Determine staffing requirements for your telecommunications organization.

Prerequisites: None

* This class can be taught on customer site. Customer Site presentations must be requested and approved by the Training Center 30 days prior to confirmation date.

Course #351: System Management Operations

Audience: Telecommunications Manager, Department Managers, and Supervisors who will work with the staff responsible for operating and maintaining the system.

Length: 4 days

Schedule: Students should be scheduled to attend the class immediately after contract signing.

Location: Northern Telecom Inc. Training Center, Richardson, TX or Customer Site*

Course Description: This course provides the knowledge and skills necessary to manage a system. Upon the completion of this course, the student will be able to:

- List and describe the various areas that comprise an effective telecommunications organization.
- List the skills and training required by the telecommunications personnel.
- List and describe the reports generated by the various areas within the telecommunications organization.
- List and describe the purpose of the various forms used by the telecommunications organization.
- Describe how the various telecommunications areas interact.
- Determine staffing requirements for your telecommunications organization.

Prerequisites: None

* This class can be taught on customer site. Customer Site presentations must be requested and approved by the Training Center 30 days prior to confirmation date.

Course #820: Meridian SL-100 LANSTAR Data Services - Sales Engineer Course (Self-Paced)

Audience: Meridian SL-100 Sales Engineers

Length: Approximately 2 days

Schedule: This is a self-paced course which may be taken any time.

Location: Customer Site

Course Description: This course is designed to provide the student with information necessary to understand the basic operating principles and requirements for the Data Products now being offered with the Meridian SL-100. Upon completion of this self-paced course, the student will be able to:

- Describe the operation of the following:
  - Low Speed Data Unit (LSDU),
  - Asynchronous Interface Module (AIM),
  - Computer/PBX Interface, and
  - Coax Eliminator.
- Describe the function of modem pooling.

Prerequisites: None

Course #830: Meridian SL-100 Provisioning Familiarization (Self-Paced)

Audience: Personnel directly involved in the Meridian SL-100 provisioning process.

Length: Approximately 3 days

Schedule: This is a self-paced course that should be taken prior to the "CI" Customer Information meeting with NTI/IOS Engineering.

Location: Customer Site

Course Description: This is a self-paced course that is designed to question the student and reinforce learning with appropriate feedback. Upon completion of this course, the student will be able to:

- Provision, with 90% accuracy, the components necessary for either a Custom Meridian SL-100 or Packaged Meridian SL-100.

Prerequisites: Basic Telephony (120), and
Introduction to Meridian SL-100/DMS-250 (105).

NOTE: This course does not replace the leader-led Meridian SL-100/DMS-250 Methods of Operation/ Provisioning (231) in prerequisites for other training courses.

Course #510: Meridian SL-100 Department Managers' Orientation

Audience: Department Managers who will work with the staff responsible for collecting the station survey information.

Length: 2 days

Schedule: This course is conducted after end-user station feature packages have been developed or one week prior to station survey collection.*

Location: Customer Site

Class Size: Maximum: 25

Course Description: This course provides Departmental Managers with a general knowledge of the features included in the organization's feature packages and applications of various Meridian SL-100 sets (e.g., Unity Family, rotary sets, electronic telephone sets, and attendant consoles).

Prerequisites: None for the participants. The organization should have its feature packages formulated.*

* See Course 555 or 561.

Course #530: Meridian SL-100 Feature Activation and Assignment

Audience: Any personnel who need to know how to operate station and attendant console features and perform basic service orders; those following the training plan outlined in the Meridian SL-100 Maintenance Document; and Lead Customer Service Representatives (CSRs).

Length: 5 days

Schedule: Students can be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Class Size: Minimum: 6 Maximum: 10

Course Description: This course provides the knowledge and skills to operate the single line set, the attendant console, and electronic telephone set features, and enter and modify station feature assignment through the SERVORD subsystem.

Prerequisites: Basic Telephony (120) preferred.
It is recommended that students following the training plan outlined in the Meridian SL-100 Resident Maintenance Procedures complete Meridian SL-100 Translations (220).

Course #539: Meridian SL-100 M2000 Series Keyboard Dialing

Audience: Those individuals who will be responsible for training the users to perform keyboard dialing on the M2000 series sets.

Length: 4 hours

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 10

Course Description: This course is designed to provide the knowledge and skills necessary to perform keyboard dialing and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the keyboard dialing features.
- Instruct others to use the station features.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550).

Course #541: SCOPE DIAL/DMS-100 Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to operate the station features.

Length: 1 day

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Student to Instructor Ratio: 10:1. Maximum: 20 Students per class.

Course Description: This course is designed to provide the knowledge and skills necessary to operate the station features and to instruct others on their operating procedures. Upon completion of this course, each student should be able to:

- Activate any of the station features.
- Instruct others to use the station features.

Prerequisites: None

Course #542: SCOPE DIAL/DMS-100 Attendant Training

Audience: Attendants.

Length: 1 day

Schedule: This course is conducted one week prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 2

Course Description: This course is designed for those individuals responsible for operating the attendant console. Upon completion of this course, each student should be able to:

- Answer, extend, and originate calls using the attendant console.
- Activate the attendant features assigned to the console.
- Incorporate the organization's operating procedures into the overall operation of the attendant console.

Prerequisites: SCOPE DIAL/DMS-100 Lead Instructor Training (541).

Course #548: Meridian SL-100 Data Products MAP Service Order Training

Audience: Personnel responsible for displaying, entering, and modifying data products via the Servord subsystem of the MAP unit.

Length: 1 day

Schedule: This course is scheduled as close to "IS" date as possible.

Location: Customer Site

Class Size: Maximum: 2

Course Description: This course provides the knowledge and skills necessary to enter and modify data products. Upon completion of this course, each student will be able to:

- Display, enter, and modify data products via the Servord subsystem of the MAP.
- Complete the required service order entry forms.

Prerequisites: Meridian SL-100 MAP Service Order Training (553).

Course #549: Meridian SL-100 ACD MAP Service Order Training

Audience: Personnel responsible for displaying, entering, and modifying ACD sets and features via the MAP unit.

Length: 4 hours

Schedule: This course is scheduled as close to "IS" date as possible.

Location: Customer Site

Class Size: Maximum: 2

Course Description: This course provides the knowledge and skills necessary to enter and modify ACD sets and features. Upon completion of this course, each student will be able to:

- Display, enter, and modify ACD sets via the Servord subsystem of the MAP.
- Complete the required service order entry forms.

Prerequisites: Meridian SL-100 MAP Service Order Training (553).

Course #550: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to operate the station features.

Length: 1 day

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Student to Instructor Ratio: 10:1. Maximum: 20 Students per class.

Course Description: This course is designed to provide the knowledge and skills necessary to operate the station features and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the station features.
- Instruct others to use the station features.

Prerequisites: None

Course #551: Meridian SL-100 Data Unit Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to operate the data unit and its features.

Length: 4 hours

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Student to Instructor Ratio: 10:1. Maximum: 20 Students per class.

Course Description: This course is designed to provide the knowledge and skills necessary to operate the data unit and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the data unit features.
- Instruct others to use the data unit features.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550).

Course #552: Meridian SL-100 Attendant Training

Audience: Attendants

Length: 1 day

Schedule: This course is conducted one week prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 2

Course Description: This course is designed for those individuals responsible for operating the attendant console. Upon completion of this course, each student should be able to:

- Answer, extend, and originate calls using the attendant console.
- Activate the attendant features assigned to the console.
- Incorporate the organization's operating procedures into the overall operation of the attendant console.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550) is recommended.

Course #553: Meridian SL-100 MAP Service Order Training

Audience: Personnel responsible for displaying, entering, and modifying line feature data via the Servord subsystem of the MAP unit.

Length: 3 days

Schedule: This course is scheduled as close to "IS" date as possible.

Location: Customer Site

Class Size: Maximum: 2

Course Description: This course provides the knowledge and skills necessary to enter and modify line feature data. Upon completion of this course, each student will be able to:

- Understand the significance of the Maintenance Administration Position (MAP).
- Display, enter, and modify line feature data via the Servord subsystem of the MAP.
- Complete the required service order entry forms.

Prerequisites: Students should have previous experience with data entry of telecommunications servicing. Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550), or SCOPE DIAL/DMS-100 Lead Instructor Training (541) is recommended.

Course #555: Meridian SL-100 Advanced End-User Administrative Training

Audience: Decision makers in the final customer telecommunications department and installing NTI branch or distributor representatives who are responsible for station survey collection and feature assignment.

Length: 3 days

Schedule: Immediately after contract signing.

Location: Customer Site

Class Size: Maximum: 10

Course Description: During this course, the end-user data base decisions that must be made prior to station data base collection are discussed. Upon completion of this course, the student will be able to:

- Identify and discuss end-user data base decisions that are necessary before cutover.
- Understand station and attendant console features.
- Devise feature packages and record keeping forms.

Prerequisites: Installing NTI branch or distributor representatives should have installation experience on a Meridian SL-100.

Course #556: Meridian SL-100 Station Survey Feature Orientation

Audience: Installing NTI branch, distributor or final customer personnel who collect station survey information. These people will assist the lead CSR.

Length: 3 days

Schedule: This course is conducted after end-user station feature packages have been developed or one week prior to station survey collection.*

Location: Customer Site

Class Size: Maximum: 10

Course Description: This course provides the knowledge and skills to collect the station feature assignment data using customer defined feature packages. Upon completion of this course, the student will be able to:

- Describe indepth the station features of the customer defined feature packages.
- Discuss with each department manager the applicability and assignment of the different features for their departments.

Prerequisites: A basic knowledge of telephony is preferred. The organization represented by the personnel attending this course should have its feature packages formulated.

* See Course 555 or 561.

Course #557: Meridian SL-100 ACD Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to operate the ACD features.

Length: 4 hours

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 20

Course Description: This course is designed to provide the knowledge and skills necessary to operate the ACD station features and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the ACD station features.
- Instruct others to use the station features.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550).

Course #558: Meridian SL-100 VMX Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to operate the ACD features.

Length: 4 hours

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 20

Course Description: This course is designed to provide the knowledge and skills necessary to operate the VMX station features and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the VMX station features.
- Instruct others to use the station features.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550).

Course #559: Meridian SL-100 LANSTAR Data Services Keyboard Dialing Lead Instructor Training

Audience: Those individuals who will be responsible for training the users to perform keyboard dialing on the AIM or AILU products.

Length: 4 hours

Schedule: This course is conducted two to three weeks prior to "IS" date.

Location: Customer Site

Class Size: Maximum: 20

Course Description: This course is designed to provide the knowledge and skills necessary to perform keyboard dialing and to instruct others. Upon completion of this course, each student should be able to:

- Activate any of the keyboard dialing features.
- Instruct others to use the features.

Prerequisites: Meridian SL-100 Single Line and Electronic Telephone or M2000 Series Set Lead Instructor Training (550).

Course #560: Meridian SL-100 Customer Service Representative Workshop

Audience: Installing NTI branch, distributor or final customer telecommunications personnel responsible for the station survey collection and feature assignments.

Length: 2 days

Schedule: At least one month prior to station survey collection.

Location: Northern Telecom Inc. Training Center, Richardson, TX or Customer Site

Class Size: Maximum: 10

Course Description: This course provides the CSR with the knowledge and skills to be able to:

- Develop and implement data collection procedures.
- Assign Line Equipment Numbers according to Northern Telecom Inc. recommendations.
- Identify call coverage needs and configure telephones.
- Develop and implement trouble desk and service order procedures.

Prerequisites: Meridian SL-100 End-User Administrative Training (555 or 561).

Course #561: Meridian SL-100 Basic End-User Administrative Training

Audience: Decision makers in the final customer telecommunications department and installing NTI branch or distributor representatives who are responsible for station survey collections and feature assignment.

Length: 4 days

Schedule: Immediately after contract signing.

Location: Customer Site

Class Size: Maximum: 10

Course Description: During this course, the end-user data base decisions that must be made prior to station data base collection are discussed. Upon completion of this course, the student will be able to:

- Identify and discuss end-user data base decisions that are necessary before cutover.
- Understand station and attendant console features.
- Devise feature packages and record keeping forms.

Prerequisites: Basic knowledge of telephony and the Meridian SL-100.

Course #562: Meridian SL-100 ACD End-User Administrative Training

Audience: Personnel responsible for ACD feature assignment.

Length: 4 hours

Schedule: Immediately after contract signing.

Location: Customer Site

Class Size: Maximum: 10

Course Description: During this course, ACD products and features are discussed. Upon completion of this course, the student will be able to:

- Identify and discuss end-user data base decisions that are necessary before cutover.
- Understand ACD station features.
- Devise feature packages and record keeping forms.

Prerequisites: Meridian SL-100 End-User Administrative Training (555 or 561).

Course #563: Meridian SL-100 Data Products Administrative Training

Audience: Personnel responsible for data product feature assignment.

Length: 4 hours

Schedule: Immediately after contract signing.

Location: Customer Site

Class Size: Maximum: 10

Course Description: During this course, data products and features are discussed. Upon completion of this course, the student will be able to:

- Identify and discuss end-user data base decisions that are necessary before cutover.
- Understand data product features.
- Devise feature packages and record keeping forms.

Prerequisites: Meridian SL-100 End-User Administrative Training (555 or 561).

COMMON CARRIER COURSES

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Training Maps

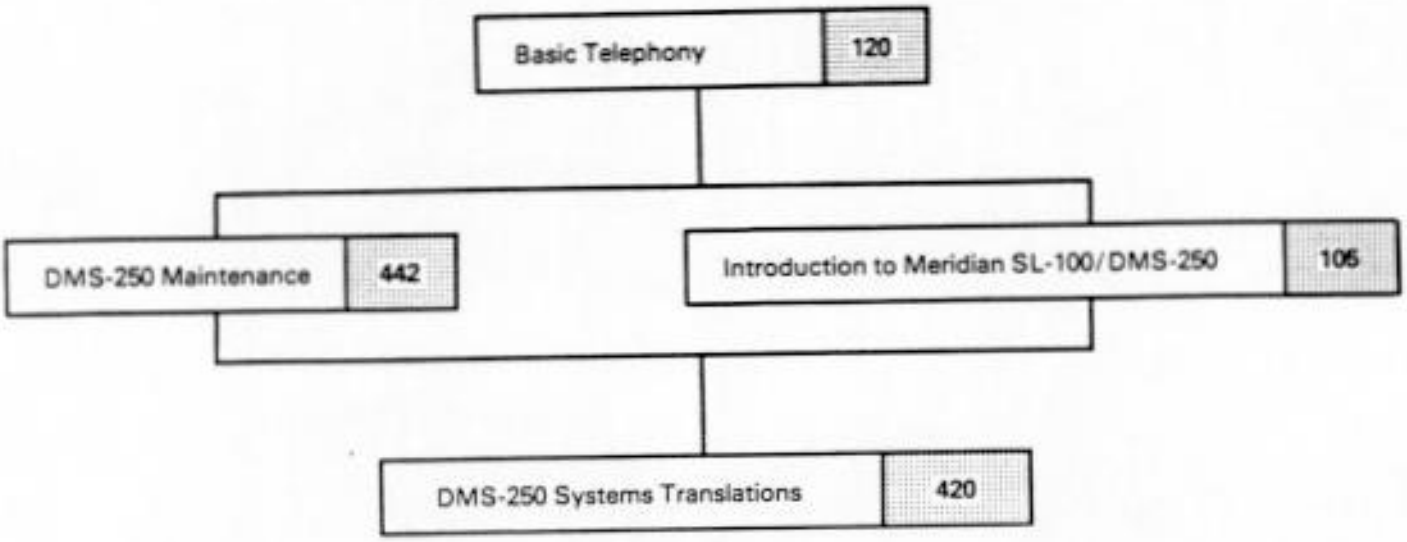
Training maps are graphic illustrations of the sequence of a given set of courses. The training maps show the **Recommended Training Curriculum** for various representative job functions. By using one of these maps, a student can determine what courses are available to help him/her perform a range of job related tasks and activities. The Course Description for each course shown on the map will provide the information needed to determine the specific knowledge and skills to be addressed in that course.

Training Map

If your job includes:

— Preparing and controlling the DMS-250 data base

Here are the recommended training courses to assist you in performing those tasks:

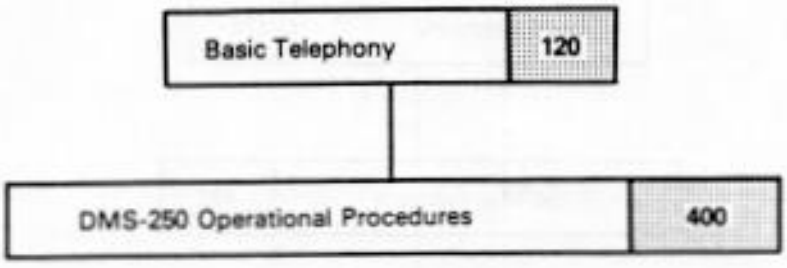


Training Map

If your job includes:

- Performing administrative functions for DMS-250 operation planning or supervising a DMS-250

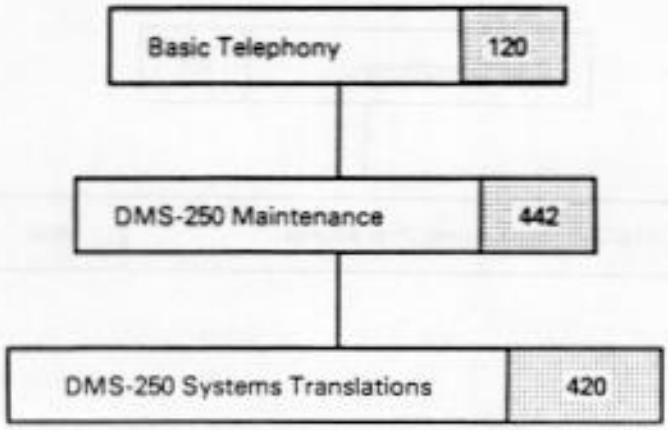
Here are the recommended training courses to assist you in performing those tasks:



If your job includes:

— Operating and maintaining a DMS-250

Here are the recommended training courses to assist you in performing those tasks:

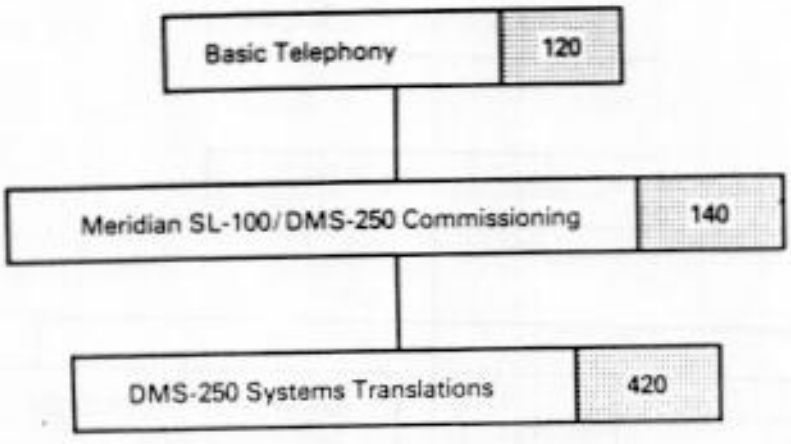


Training Map

If your job includes:

– Commissioning the DMS-250

Here are the recommended training courses to assist you in performing those tasks:

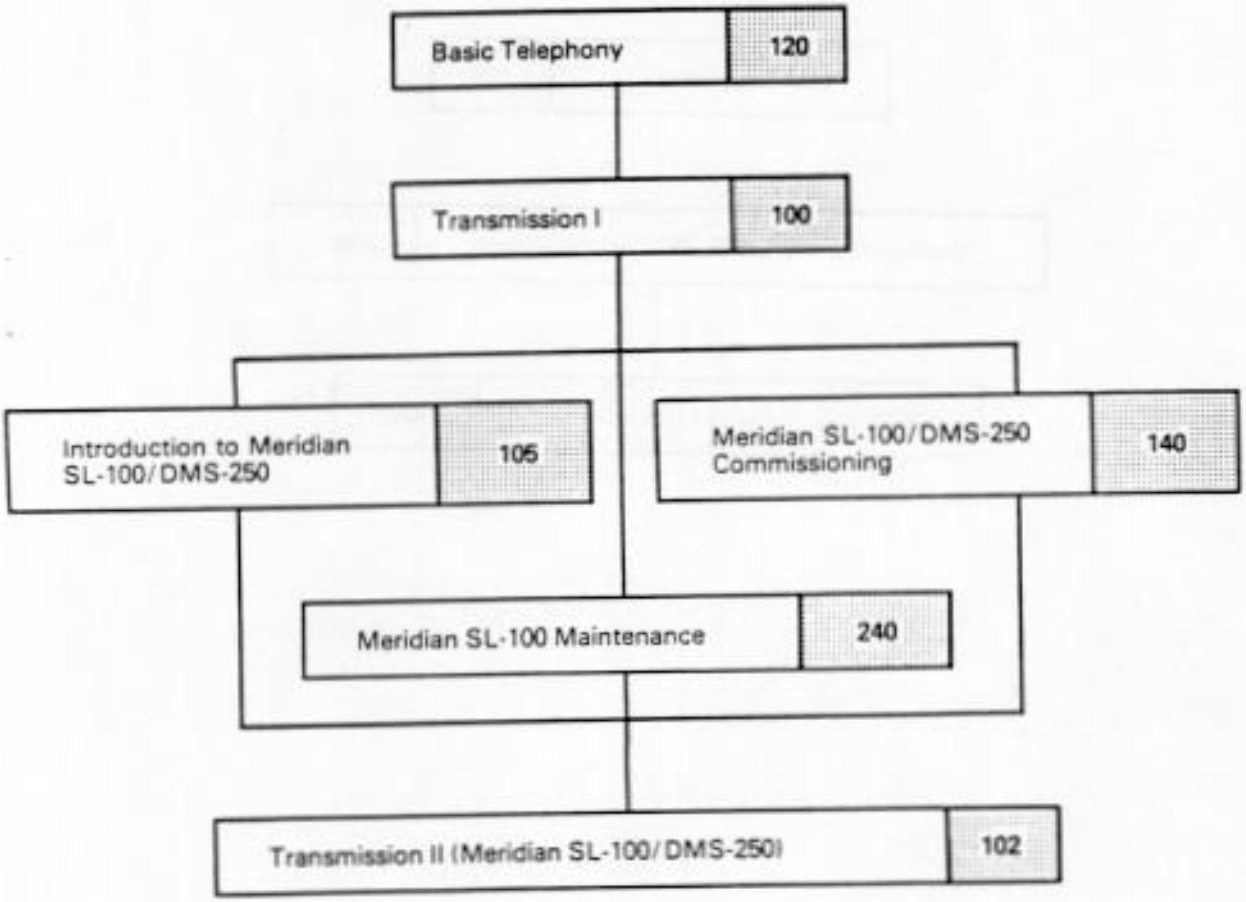


Training Map

If your job includes:

- Maintaining, troubleshooting, and using trunking and transmission facilities and equipment related to the DMS-250

Here are the recommended training courses to assist you in performing those tasks:

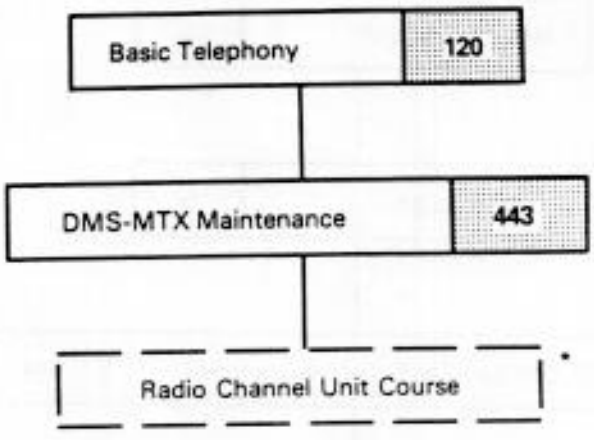


Training Map

If your job includes:

— Operating and maintaining a DMS-MTX and if you have no prior experience on a DMS-100 or DMS-250

Here are the recommended training courses to assist you in performing those tasks:



• The Radio Channel Unit Course (627) is offered by General Electric. Call (804) 528-7770 for more information.

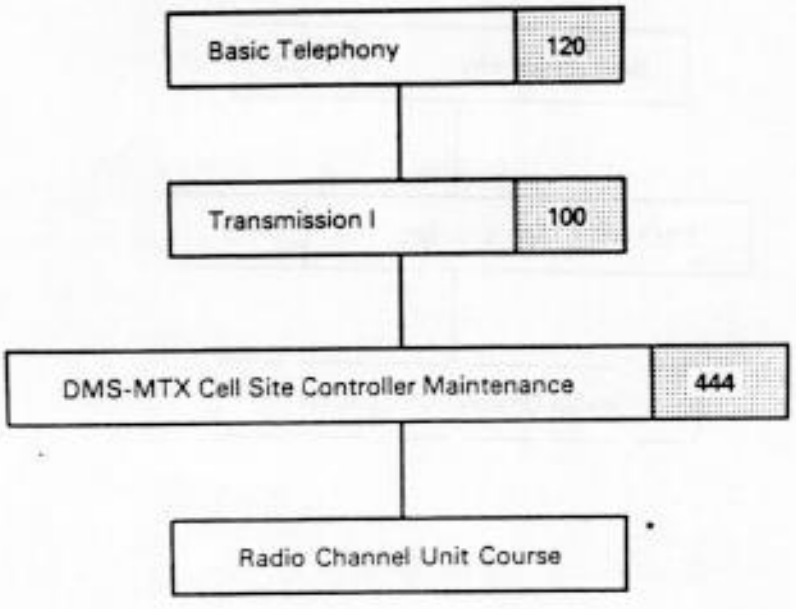
The broken line box indicates a course which is optional but highly recommended.

Training Map

If your job includes:

— Operating and maintaining a Cell Site Controller (CSC)

Here are the recommended training courses to assist you in performing those tasks:



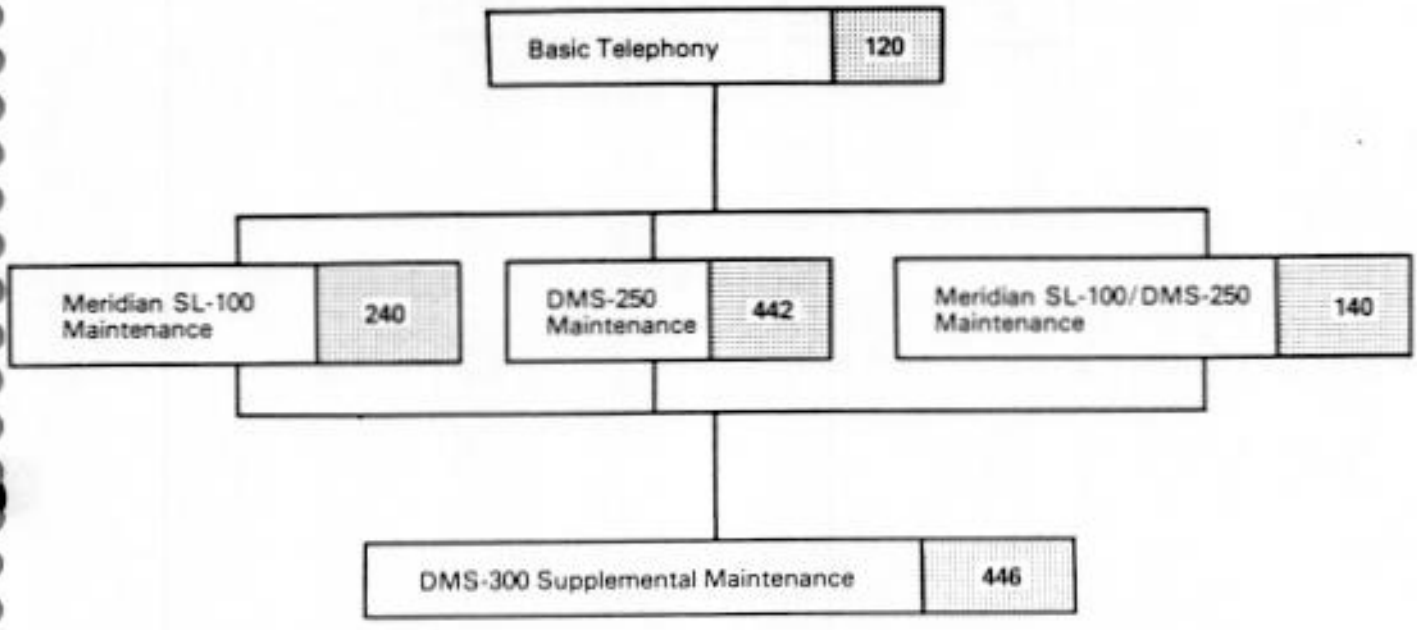
* The Radio Channel Unit Course (627) is offered by General Electric. Call (804) 528-7770 for more information.

Training Map

If in the past 18 months, you have worked on a DMS-100 or DMS-250, and if your job includes:

- Operating and maintaining a DMS-300

Here are the recommended training courses to assist you in performing those tasks:



Training Map

If your job includes:

— Maintaining the CTSS 1000

Here are the recommended training courses to assist you in performing those tasks:

CTSS 1000 Theory and Maintenance	440

Training Map

If your job includes:

— Maintaining the CTSS 4000

Here are the recommended training courses to assist you in performing those tasks:

CTSS 4000 Theory and Maintenance	441

Course #400: DMS-250 Operational Procedures (NTOP)

Audience: Switch Supervisors directly responsible for the overall operation of a DMS-250 system.

Length: 5 days

Schedule: Students should attend this course at "D" date (System Delivery) or any time thereafter.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: The DMS-250 Operational Procedures course provides the general guidelines recommended to operate and administer the Northern Telecom DMS-250 system in the switching environment. Upon completion of this course, the student will be able to:

- Administer the command system.
- Describe the functions of the four areas of the DMS-250.
- Organize and control operational measurement classes.
- Manipulate LOGUTIL, operational measurement, and Terminal Device control tables.
- Interpret basic log report and operational measurement information.

Prerequisites: Basic Telephony (120).

Course #420: DMS-250 Systems Translations

Audience: Personnel directly responsible for data base management relating to the DMS-250 system.

Length: 5 days

Schedule: Students should be scheduled in this course approximately 16 weeks prior to "D" date (System Delivery).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides the student with the knowledge of the fundamental methods of preparing and controlling the data base of the DMS-250. Upon completion of this course, the student will be able to:

- Describe DMS-250 data tables related to the translation process.
- Describe the data base structure of trunk route selection.
- Trace the flow of translations through associated data tables.
- Enter datafill in the DMS-250 data tables, to include:
  - trunk group tables,
  - various treatments,
  - pretranslation,
  - prefixing,
  - authorization codes,
  - restrictions (e.g., TOD), and
  - three and six-digit screening.
- Perform Translations Verification.
- Describe Journal File activities.
- "Turn up" (activate) trunk circuits for service.

Prerequisites: Basic Telephony (120), and
DMS-250 Maintenance (442), or
Introduction to Meridian SL-100/DMS-250 (105).

Course #440: CTSS 1000 Theory and Maintenance

Audience: Switch Maintenance Technicians, Systems Engineers, and personnel responsible for the system operation of the CTSS 1000 systems.

Length: 14 days

Schedule: Students should complete this course during system installation or later.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides the technical knowledge and skill required to maintain the Northern Telecom CTSS 1000 Tandem Switch. Upon completion of this course, the student will be able to:

- Perform all CTSS 1000 man-machine operations:
  - Warmstart and coldstart the CTSS 1000.
  - Initiate and run call processing diagnostics.
  - Initiate and run all off-line diagnostics.
  - Dump billing on-line or off-line.
- Describe the theory of operation of the CTSS 1000:
  - Call processing hardware flow.
  - Off-line diagnostic hardware flow.
- Recognize and isolate faults that occur in CTSS 1000 hardware:
  - Use visual indicators to recognize faults.
  - Use test equipment to isolate faults.
  - Interpret maintenance information and alarm messages.
  - Interpret off-line diagnostic failure indications.
- Correct hardware faults:
  - Replace faulty components.
  - Realign selected components.
- Perform preventive maintenance on CTSS 1000 hardware.

Prerequisites: None

Availability: This course is not a regularly scheduled course. Call the Training Coordinator at (214) 234-7722 for the availability of this course.

Course #441: CTSS 4000 Theory and Maintenance

Audience: Switch Maintenance Technicians, Systems Engineers, and personnel responsible for the system operation of the CTSS 4000 family of systems.

Length: 14 days

Schedule: Students should complete this course during system installation or later.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides the technical knowledge and skill required to maintain the Northern Telecom CTSS 4000 Tandem Switch or subtypes such as the X41 - X43. Upon completion of this course, the student will be able to:

- Perform all CTSS 4000 man-machine operations:
  - Warmstart and coldstart the CTSS 4000.
  - Initiate and run call processing diagnostics.
  - Initiate and run all off-line diagnostics.
  - Dump billing on-line or off-line.
- Describe the theory of operation of the CTSS 4000:
  - Call processing hardware flow.
  - Off-line diagnostic hardware flow.
- Recognize and isolate faults that occur in CTSS 4000 hardware:
  - Use visual indicators to recognize faults.
  - Use test equipment to isolate faults.
  - Interpret maintenance information and alarm messages.
  - Interpret off-line diagnostic failure indicators.
  - Use system documentation.
- Correct hardware faults:
  - Replace faulty components.
  - Realign selected components.
- Perform preventive maintenance on CTSS 4000 hardware.

Prerequisites: None

Availability: This course is not a regularly scheduled course. Call the Training Coordinator at (214) 234-7722 for the availability of this course.

Course #442: DMS-250 Maintenance

Audience: Switch Maintenance Technicians, System Engineers, and personnel responsible for the system operation of a DMS-250 system.

Length: 25 days

Schedule: Students should attend this course at "D" date (System Delivery) or "H" date (Start of Installation).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: The DMS-250 Maintenance course provides the technical knowledge and skills required to operate and maintain the Northern Telecom DMS-250 system in the switching environment. Upon completion of this course, the student will be able to:

- Use all supporting documentation to reference applicable maintenance procedures and practices.
- Identify, locate and describe the operation of the major components of the DMS-250 system.
- Perform selected basic procedures required to operate the DMS-250 system.
- Recognize faults in the DMS-250 operation and isolate faults to the appropriate testing level.
- Perform manual and automatic line and trunk testing.
- Correct equipment faults by replacing faulty components at the appropriate level, using maintenance procedures and log reports.
- Use applicable OMs and special reports to localize equipment errors and faults.

Prerequisites: Basic Telephony (120).

Course #443: DMS-MTX Maintenance

Audience: Switch Maintenance Technicians, System Engineers, and personnel responsible for the system operation of a DMS-MTX system.

Length: 25 days

Schedule: Students should attend this course at "D" date (System Delivery) or "H" date (Start of Installation).

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: The DMS-MTX Maintenance course provides the technical knowledge and skills required to operate and maintain the Northern Telecom DMS Mobile Telephone Exchange system in the cellular switching environment. Upon completion of this course, the student will be able to:

- Locate, identify, and describe the operation of the major components of the DMS-MTX system.
- Use all supporting documentation to reference applicable maintenance procedures and practices.
- Perform selected basic procedures required to operate the DMS-MTX system.
- Recognize faults in the DMS-MTX operation and isolate faults to the appropriate testing level.
- Perform manual and automatic line and trunk testing.
- Correct equipment faults by replacing faulty components at the appropriate level, using maintenance procedures and log reports.
- Use applicable OMs and special reports to localize equipment errors and faults.

Prerequisites: Basic Telephony (120).

Course #444: DMS-MTX Cell Site Controller Maintenance

Audience: Personnel responsible for the maintenance of a Cell Site Controller (CSC).

Length: 10 days

Schedule: Students should attend this course at "D" date (System Delivery) or anytime thereafter.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides the technical knowledge and skills to maintain and operate the Cell Site Controller of the Northern Telecom DMS-MTX cellular system. Upon completion of this course, the student will be able to:

- Identify the four major DMS-MTX hardware areas and their associated links.
- Locate and identify the CSC hardware components and list the system function each performs.
- Locate and identify the interface components between the DMS-MTX and CSC, and between the CSC and Radio Channel Unit (RCU).
- Use the DMS system documentation to locate descriptions of system hardware and software, and for operating, testing, analyzing, fault locating, and fault clearing.
- Use the Table Editor Utility commands to review, add, or modify cellular related data tables.
- Use a Maintenance and Administration Position and the appropriate software commands to perform practical and catastrophic maintenance, and administrative tasks.
- Identify, test, analyze, and clear system alarms.

Prerequisites: Basic Telephony (120), and
Transmission I (100).

* It is recommended that the student attend the supplementary General Electric Radio Control Unit course (627) on radio equipment. The Radio Control Unit Course has to be scheduled through General Electric, (804) 528-7770, Lynchburg, Virginia 24502.

Course #446: DMS-300 Supplemental Maintenance

Audience: Personnel responsible for the maintenance of a DMS-300 and who, in the past 18 months, have had experience on a DMS-100 or DMS-250.

Length: 9 days

Schedule: Students may attend this course at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course provides supplemental technical knowledge and skills to operate and maintain a DMS-300 system. Upon completion of this course, the student will be able to:

- Identify the four major hardware areas of the DMS-100 family of switches.
- List the characteristics of CCITT #6 signaling.
- Identify, test, analyze, and clear system faults.

Prerequisites: Basic Telephony (120), and
Meridian SL-100 Maintenance (240), or
DMS-250 Maintenance (442), or
Meridian SL-100/DMS-250 Commissioning (140).

SALES COURSES

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IOS Sales and Marketing Training

As the 1987 calendar year opens, a new thrust is given to the Sales and Marketing Training effort. The resources existing to support Meridian SL-1 and SL-100 training efforts have been consolidated to yield one dynamic department prepared to meet all of your sales and marketing product knowledge needs.

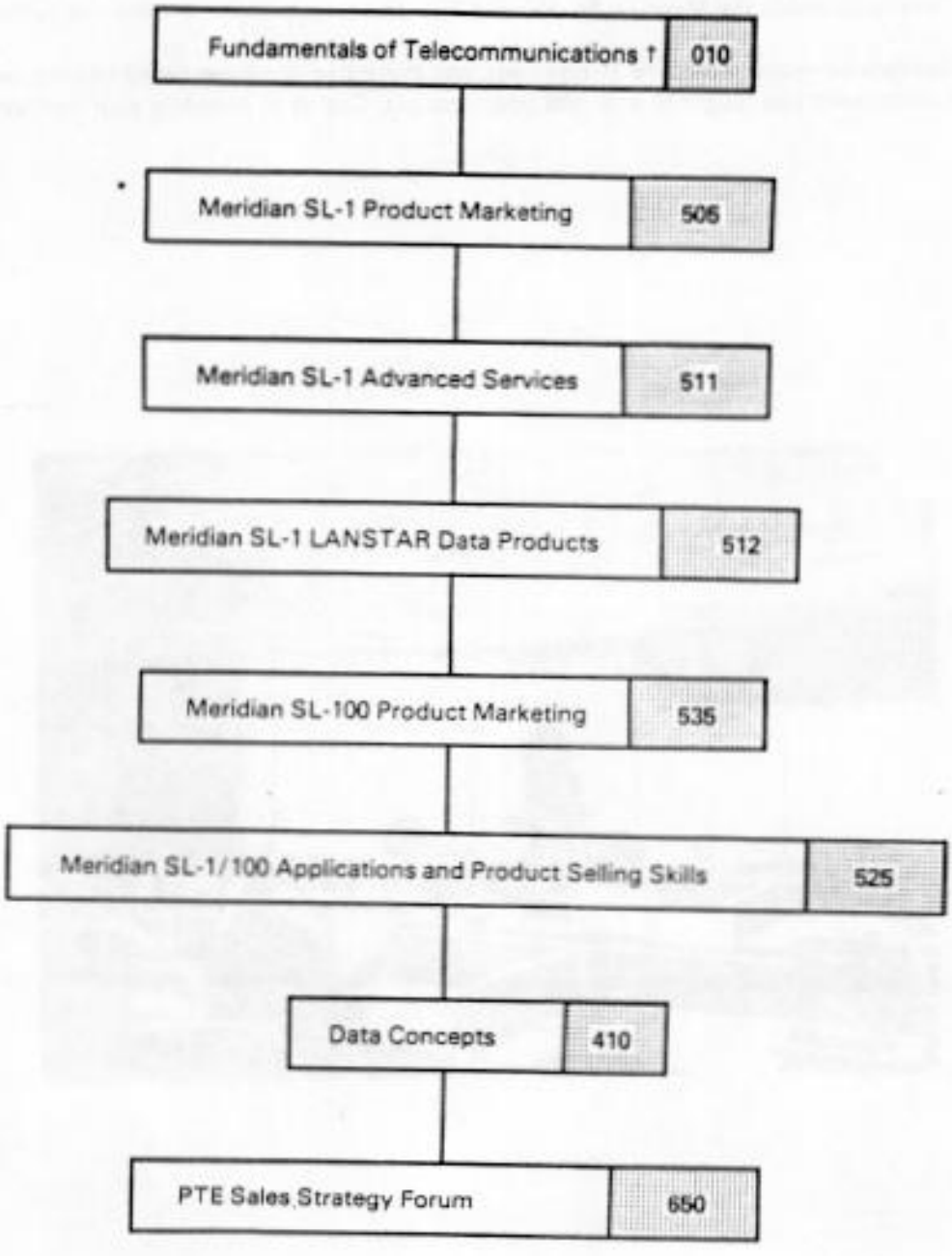
The introduction of the MATS (Meridian Applications Training Series) in 1986 has proven to be so successful that it is being enhanced in 1987. We have added the Meridian SL-100 and PTE courseware as initial additions to the 1987 curriculum.

Look for more applications seminars, more field involvement, and integrated computer-based training next year. All courses are available to be customized and taught at your site upon request. Call us to schedule your next session.

If your job includes:

— Sales and marketing of Meridian SL-1 Products

Here are the recommended training courses to assist you in performing those tasks:



† Self-Paced Course

* If necessary, Meridian SL-1 Familiarization (500) may be substituted for 505.

Course #410: Data Concepts

Audience: Sales representatives, national account managers, account representatives, sales managers, and sales support personnel

Length: 5 days

Course Description: This course is designed to provide the student with an overview of data communications, data processing, and office automation technology and standards in order to better understand customer environments. Content includes:

- Overview of business communications and processing
- Hardware and media
- Interfaces and protocols
- Networks and system software
- Wide Area Networks (WANs)
- Local Area Networks (LANs)
- Analysis and Management
- OSI model
- Applications

Prerequisites: None

Course #500: Meridian SL-1 Familiarization

Audience: Customers and customer service representatives

Length: 5 days

Course Description: This course is designed to provide the student with an overview of the operation of the Meridian SL-1; a description of the functions and application of basic voice services features; a description of the various components and function of the Meridian SL-1; an explanation of the basic memory and traffic configuration; and a working knowledge of the basic architecture of the Meridian SL-1. Content includes:

- Discussion of system documentation
- Description of user terminals and add-on modules
- Demonstration of station equipment and feature operation
- Laboratory exercises to include programming for 500, 2500, SL-1 and digital sets
- Discussion of basic system configuration and parameters
- Description of equipment cabinets and shelf arrangements
- Discussion of CPU functions and memory allocation
- Explanation of common and peripheral circuit pack functions
- Review of traffic reports and their application

Prerequisites: Fundamentals of Telecommunications (010)*.

NOTE: This course is similar in content to Meridian SL-1 Product (505). However, the 505 course is recommended for marketing and sales personnel.

* self-paced course

Course #505: Meridian SL-1 Product Marketing

A MATS Course

Audience: National account managers, sales managers, sales representatives, account representatives, and sales support personnel

Length: 5 days

Course Description: This course is designed to provide the student with an overview of Northern Telecom and the Meridian SL-1; a description of the various architectural components of the Meridian SL-1 — functions, benefits and evolution of voice services products; an introduction of basic memory and traffic configuration; a discussion of feature capabilities and applications for the Meridian SL-1; and competitive, leasing and marketing information. Content includes:

- NTI corporate history
- NTI marketing strategies
- Meridian SL-1 product family
- Meridian SL-1 overview
- NTP overview
- CPU functions and memory allocation to include evolutions and customer benefits
- Network functionality, flexibility, and evolution
- Analog and digital technology and benefits
- Attendant console, capabilities, and benefits
- Station equipment and feature applications and benefits
- Basic system configuration and parameters
- Brief overview of special features available on Meridian SL-1 such as: BARS, CAS, CDR, and RPE
- Competitive analysis
- NTFC leasing options
- Autoquote
- Customer scenarios

Prerequisites: Fundamentals of Telecommunications (010)*.

NOTE: This course is similar in content to Meridian SL-1 Familiarization (500). However, the 500 course is recommended for customers.

* self-paced course
MATS (Meridian Applications Training Series)

Course #511: Meridian SL-1 Advanced Services

A MATS Course

Audience: National account managers, sales managers, sales representatives, account representatives, and sales support personnel

Length: 5 days

Course Description: This course is designed to provide the student with an overview of messaging, management, network services, and their applications available on the Meridian SL-1. Content includes:

- Function, sales applications and benefits of the following services:
  - Meridian SL-1 message center
  - IVMS
  - ACD (A-D)
  - ESN
  - X37
  - Multi-tenant
  - TRU
- Competition

Prerequisites: Fundamentals of Telecommunications (010)*, and
Meridian SL-1 Familiarization (500), or
Meridian SL-1 Product Marketing (505).

* self-paced course

MATS (Meridian Applications Training Series)

Course #512: Meridian SL-1 LANSTAR Data Products

A MATS Course

Audience: National account managers, sales managers, sales representatives, account representatives, and sales support personnel

Length: 5 days

Course Description: This course is designed to provide the student with an overview of the Meridian SL-1 LANSTAR Data Products and their positioning in the integration of voice and data in today's office environment; and knowledge about marketing data products and the competitors in the data market. Content includes:

- Introduction to basic data concepts
  - Overview of DP Environment
  - Terminology
  - Local Area Networks
  - Wide Area Networks
- Introduction to basic data communications
  - Terminology
  - Components of datacomm networks
- Meridian SL-1 LANSTAR Data Products
  - Digital telephone data options
  - Add-On Data Module (ADM)
  - Asynchronous Interface Module (AIM)
  - Asynchronous Interface Line Unit (AILU)
  - Asynchronous/Synchronous Interface Module (ASIM)
  - Multi-channel data system (MCDS)
  - IBM PC interface
  - MAC PC Connectivity
  - DTI/CPI
  - 3270 Protocol Converter
  - Coax Elimination and Switching System
  - Meridian SL-1 System 36 Gateway
  - Meridian SL-1 X.25 Gateway
  - Ethernet Gateway
- Competition
- Sales applications

Prerequisites: Fundamentals of Telecommunications (010)*, and
Meridian SL-1 Product Marketing (505), or
Meridian SL-1 Familiarization (500).

NOTE: Content will vary as new products/services are introduced. Software programming is covered in 130.

* self-paced course
MATS (Meridian Applications Training Series)

Course #525: Meridian SL-1/100 Applications and Product Selling Skills

A MATS Course

Audience: Sales representatives, national account managers, sales managers, account representatives, and sales support personnel

Length: 5 days

Course Description: This course is designed to provide the student with strategic skills to recognize product applications; with skills to educate a prospect to appreciate the value of NTI products and services and to differentiate NTI products through quality representatives who can identify and solve business problems; the ability to transfer product knowledge to feature benefits and applications which effectively address customer needs; and to maintain and build current market share. Content includes:

- Setting sales objectives
- Product applications
- Factors affecting sales
- Qualifying procedures
- Communication skills
- Strategies for successful presentations
- Problem solving
- Closing
- Implementation schedules
- Account planning

Prerequisites: Meridian SL-1 Product Marketing (505),
Meridian SL-100 Product Marketing (535),
Counselor Selling (or equivalent) - taught at Nashville Training Center,
Meridian SL-1 Advanced Services (511), and
Meridian SL-1 LANSTAR Data Products (512).

NOTE: This course includes programmed instruction, audio and video case studies, and progressive simulations of the sales process. A final sales presentation which builds on the practice cases during the week is developed from a sales representative's actual account. The final presentation is video-taped and critiqued.

Course #535: Meridian SL-100 Product Marketing

Audience: National account managers, sales managers, sales representatives, account representatives, and sales support personnel.

Length: 2 days

Location: Northern Telecom Inc. Training Center, Richardson, TX or customer site

Course Description: This course is designed to provide the student with an overview of the Meridian SL-100 from a marketing perspective. Product positioning and market applications will be covered. Content includes:

- Meridian SL-100 evolution
- Architectural components and how to present their benefits to the customer
- Hardware and software functionality, flexibility and evolution
- Station equipment and feature applications and benefits
- Meridian SL-100 marketplace and applications within each market segment
- Competitive analysis
- Available Meridian SL-100 support
- Basic implementation procedures

Prerequisites: General knowledge of salesmanship and basic telephony.

Course #536: Meridian SL-100 Executive Overview

Audience: Management/administrative personnel who need a non-technical knowledge of the Meridian SL-100.

Length: 4 to 8 hours

Course Description: This course is designed to provide the student with a fundamental knowledge of the Meridian SL-100's evolution, hardware architecture, software organization, features and applications. Content includes:

- System evolution and configuration
- System equipment terminology and acronyms
- Software function and organization
- System feature sets and equipment
- System applications

Prerequisites: None

Course #650: PTE Sales Strategy Forum

A MATS Course

Audience: Sales representatives, national account managers, sales managers, account representatives, and sales support personnel.

Length: 4 days

Course Description: This course provides the sales professional the product and positioning information necessary to sell PTE applications to appropriately identified customer needs. Upon completion of this course the student will be able to:

- Discuss the evolution of PTE
- Profile the product's:
  - architecture
  - features
  - benefits
  - applications
- Implement an effective PTE Sales Plan
- Utilize a resource network to increase sales efficiency
- Apply information learned from current active accounts
- Identify critical areas in today's competitive market
- Distinguish PTE and DV-1 positioning
- Identify potential problems and present counters

Prerequisites: Meridian SL-1 Product Marketing (505),
Data Concepts (410), and
Meridian SL-1 LANSTAR Data Products (512), or
Meridian SL-1 LANSTAR Data Administration (130).

Course #540: Meridian SL-100 Sales Engineering

Audience: Sales Representatives/Sales Engineers who need in-depth system knowledge and the various procedures needed to complete a bid response.

Length: 5 days

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with Meridian SL-100 system knowledge and the knowledge necessary to respond to a RFQ and RFP from receipt to completion. Content includes:

- System hardware/software technical information
- System component functions and relationships
- System terminology and acronyms
- System applications
- Full implementation guidelines
  - Forms
  - Autoquote
  - Resources
  - RFP/RFQ Influence and Response

Prerequisites: Basic telephony knowledge.

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Course #010: Fundamentals of Telecommunications (Self-Paced)

Audience: Clerical or professional people who are interested in a basic understanding of telecommunications.

Length: Approximately 8 hours — Self-Paced

Course Description: This course is designed to provide the student with an understanding of certain basic and fundamental areas of telecommunications. Content includes:

- Introduction to the telephone
- Switching concepts
- Network facilities, trunks
- Customer premises equipment for business
- Systems engineering
- Bibliography and glossary

Prerequisites: None

NOTE: This is a self-paced course intended to serve as an initial introduction into the business of telecommunications. It is not the intent of this course to teach the student everything about the complex world of telecommunications — but only to give the student a basic understanding and foundation on which to build. It is generally not intended for "hands-on" technicians.

Course #040: Integrated Voice Messaging System Product/Marketing (Self-Paced)

Audience: Sales representatives, sales managers, national account managers, sales support personnel

Length: Approximately 4 hours — Self-Paced

Course Description: This course is designed to provide the student with sufficient product knowledge and sales-related information to talk intelligently about IVMS and to close more IVMS business. Content includes:

- Description of how typical business communications problems and the traditional ways of dealing with them have led to the development of the IVMS product
- Definition and description of the hardware and software components
- Definition and description of the IVMS features and how they benefit customers
- How to position IVMS to the student's customers and get results

Prerequisites: Fundamentals of Telecommunications (010)*, and
Introduction to the Meridian SL-1 (051)*.

Material Required: Audio cassette player

NOTE: This course consists of a self-paced booklet and an audio cassette. The cassette player is NOT provided.

* self-paced course

Course #400: Introduction to Data Communications

Audience: Support personnel who are responsible for installing and maintaining the Meridian SL-1 LANSTAR Data Products.

Length: 5 days

Course Description: This course is designed to provide the student with a description of the use, function and operation of equipment used in data communication. Content includes:

- Digital transmission principles
- Digital numbering systems
- Coding systems
- Data communication protocols
- Data transmission facilities (media)
- Methods of error detection and correction
- Physical layer hardware interfaces
- Data communication equipment (DCE)
- Data terminal equipment (DTE)
- Data networks
- Data network testing

Prerequisites: None

Course #401: Introduction to Computer Concepts

Audience: Personnel who will be required to support data communication, data processing, and office automation equipment.

Length: 5 days

Course Description: This course is designed to provide the student with a description of the use, function, and operation of equipment used in a data processing environment. Items covered will be:

- Various classes of computers
- CPUs
- Disk storage
- Tape drives
- Printers
- Operating systems
- High level languages and application programs

Prerequisites: None

Course #402: Introduction to Office Automation

Audience: Personnel who will be required to support data communication, data processing, and office automation equipment.

Length: 5 days

Course Description: This course is designed to provide the student with a description of the use, function, and operation of equipment used in an office automation environment. Items covered will be:

- Local Area Networks (LANs)
- Devices used within a LAN
- PBX and data processing LANs
- Public networks
- IBM computers
- IBM telecommunications processing
- IBM 3270 products
- SNA
- Office automation
- Vendors other than IBM

Prerequisites: Introduction to Data Communication (400), and
Introduction to Computer Concepts (401).

Course #100: Transmission I

Audience: Field Service Engineers and Technicians responsible for the maintenance, troubleshooting, and usage of telephone trunking, transmission facilities and equipment.

Length: 5 days

Schedule: Students may be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with an understanding of the fundamentals of telecommunications transmission. Upon completion of this course, the student will be able to:

- Describe the mechanics of speech and hearing in relation to wave form.
- List five types of trunks, the equipment associated with each, and the call types that would use each type of trunk.
- Draw a block diagram of all five office classes and their associated links and cross links.
- Describe all five types of telephone signaling categories including supervisory, address, information, alerting and test signals.
- Identify and describe the different types of transmission facilities to include paired wire, coaxial cable, microwave radio, and fiber optics.
- Demonstrate the use of demarcation points, 4-wire termination sets, and E&M signaling interfaces.
- Identify, by using testing procedures, the differences between loaded and non-loaded cable, cable of different gauges, and impedance mismatches.
- Demonstrate, through the use of transmission test equipment, an understanding of transmission impairments, including noise, loss, echo, and signal distortion.
- Test and perform routine maintenance tasks using transmission test equipment of various trunk types.

Prerequisites: Basic Telephony (120).

Course #102: Transmission II (Meridian SL-100/DMS-250)

Audience: Field Service Engineers and Technicians responsible for the maintenance, troubleshooting, and usage of telephone trunking, transmission facilities and equipment as related to the Meridian SL-100/DMS-250.

Length: 15 days

Schedule: Students may be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with advanced information on transmission quality for the Meridian SL-100/DMS-250 product line. Upon completion of this course, the student will be able to:

- Recognize system components of the Meridian SL-100/DMS-250 hardware, software maintenance and power requirements.
- Identify the Meridian SL-100/DMS-250 products by listing at least one feature of any selected switch.
- Describe transmission specifications by listing at least two characteristics of each of the following:
  - Signal Tone Levels and Frequencies,
  - Signaling Capabilities,
  - Signaling Conditions and Voltage, and
  - Trunk Types and Capabilities.
- Demonstrate knowledge of trunk card identification, strapping and alignment for all trunk cards currently connected to the Bell System without interfaces. This demonstration will be measured by how closely the student follows the text-outlined steps in adjusting a trunk card.
- Demonstrate correct use of switch transmission testing capabilities by following the steps in Manual Trunk Tests and by properly testing a minimum of 12 simulated facility problems.
- Set up a data base for a trunk group.
- Demonstrate a knowledge of maintenance methods for the T-1 Carrier span lines by listing the characteristics of pair loss measurement, fault locating principles, trouble indicators, and regenerators.
- Demonstrate, using appropriate test equipment, the steps involved in the method of service tune-up for DE-4 Channel Banks and special options for selected channel units.

Prerequisites: Basic Telephony (120),
Transmission I (100), and
Introduction to Meridian SL-100/DMS-250 (105), or
Meridian SL-100 Maintenance (240), or
Meridian SL-100/DMS-250 Commissioning (140).

Course #105: Introduction to Meridian SL-100/DMS-250

Audience: Any personnel who need a basic knowledge of the function and operation of the Meridian SL-100/DMS-250 systems.

Length: 5 days

Schedule: Students may be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with a basic knowledge of the function and operation of the Meridian SL-100/DMS-250 systems. Upon completion of this course, the student will be able to:

- Demonstrate knowledge of the Meridian SL-100/DMS-250 hardware components by:
  - Listing the functions and capabilities of the Peripheral Modules.
  - Describing the functions of the four areas of the Meridian SL-100/DMS-250.
- Utilize the various documents provided by NTI by locating hardware descriptions in General Specifications and Northern Telecom Practices.
- Apply knowledge of the use of the VDU by performing:
  - Table Editor procedures,
  - Service orders,
  - MAPCI entries, and
  - LOGUTIL browsing commands.

Prerequisites: Basic Telephony (120).

Course #120: Basic Telephony

Audience: Personnel who have no prior knowledge or background in the Telecommunications industry.

Length: 4 days

Schedule: Students may be scheduled at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the student with an overview of the technological evolution of the telephone industry. Upon completion of this course, the student will be able to:

- Display an understanding of the business and legal developments that created today's telecommunications industry.
- Describe, in general terms, the evolution of the Central Office from switchboards to present day technology.
- Describe, in general terms, the six components of the telephone and how they work.
- Display an understanding of station equipment, including the functions of a single line telephone instrument, an electronic telephone instrument, and an electronic workstation.
- Define the different trunking facilities and subscriber lines used in the telephone network.
- List and describe five different types of trunk signaling.
- Display an understanding of the telephone network and its purpose (including Long Distance Calling, Local Calling, and International Dialing Patterns).

Prerequisites: None

Course #140: Meridian SL-100/DMS-250 Commissioning

Audience: Commissioning personnel who will be performing Meridian SL-100/DMS-250 systems installation.

Length: 25 days

Schedule: Students should be scheduled as required to support system installation.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This course is designed to provide the technical knowledge and skills required to properly operate and maintain Northern Telecom Meridian SL-100/DMS-250 systems in the customer's environment. Also, this course is designed to introduce basic concepts of commissioning and testing procedures required for system acceptance. Upon completion of this course, the student will be able to:

- Identify and locate the major components of the Meridian SL-100/DMS-250.
- Use all supporting documentation to reference applicable maintenance procedures and practices.
- Perform basic tasks required to operate the Meridian SL-100/DMS-250.
- Describe basic functional concepts and structure of the Meridian SL-100/DMS-250 method of operation and call processing procedures.
- Describe the commissioning procedures outlined in the Northern Telecom Critical Paths Chart.
- Perform the commissioning procedures outlined in this course.

Prerequisites: Basic Telephony (120).
A minimum of one year experience in telephone switching systems or carrier systems.

Availability: This course is not a regularly scheduled course. Call the Training Coordinator at (214) 234-7722 for the availability of this course.

Course #810: Introduction to Meridian SL-100/DMS-250 (Self-Paced)

Audience: Any personnel who need a basic knowledge of the function and operation of the Meridian SL-100/DMS-250 systems.

Length: Approximately 3 days

Schedule: This is a self-paced course that may be taken at any time.

Location: Northern Telecom Inc. Training Center, Richardson, TX

Course Description: This is a self-paced course that is designed to question the student and reinforce learning with appropriate feedback. Upon completion of this course, the student will be able to:

- Demonstrate knowledge of the Meridian SL-100/DMS-250 hardware components by:
  - Listing the functions and capabilities of the Peripheral Modules.
  - Describing the functions of the four areas of the Meridian SL-100/DMS-250.
- Utilize the various documents provided by NTI by locating hardware descriptions in General Specifications and Northern Telecom Practices.

Prerequisites: Basic Telephony (120).

NOTE: This course does not replace the leader-led Introduction to Meridian SL-100/DMS-250 (105) in prerequisites for other training courses.

FUTURE COURSES

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Remote Switching Center (RSC) Maintenance 7-2

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Meridian SL-100 Cabinetized Remote Line Concentrating Module (RLCM) Commissioning 7-2

Meridian SL-100 Traffic Analysis 7-2

Maintenance Related Operational Measurements 7-2

AUTOVON Hardware and Data Base Maintenance 7-2

IOS Training Center — Future Courses

Northern Telecom makes every effort to provide training programs to meet your needs. We constantly modify and update our existing courses and develop new ones to provide the curriculum you need to perform your job effectively. The following descriptions are of the proposed content of future courses.

Future Meridian SL-1 Courses:

Meridian SL-1 Packet Transport Equipment (PTE)

In February, 1985, Northern Telecom Inc. announced a major extension and enhancement of Meridian SL-1 capabilities. The Meridian SL-1 Packet Transport Equipment offers a true integration of multi-media through a new M4020 terminal, Information Services, LANSTAR Services, and Wide Area Networking.

Training courses for personnel responsible for sales, installation, maintenance, programming, configuration, and administration are currently being developed.

These courses include:

- Familiarization
- Installation
- Maintenance
- Administration
- Engineering
- Applications
- End-User Courses

Specific dates and location for course availability have not yet been determined. You will receive catalogue updates when further information becomes available.

Meridian SL-1 Operational Theory and Remote Troubleshooting Concepts

This course will be designed to provide the advanced student with the information and practice needed to perform efficient and timely in-depth maintenance on Meridian SL-1 systems and their peripheral devices, specifically in a remote or "Test Center" environment.

Future Meridian SL-100/Common Carrier Courses:

SNS Interface and Application: This course will be designed to provide detailed information on the interface between the DV-1 and the DMS-250, the protocol used, and an overview of the application layers and software required.

Remote Line Concentrating Module (RLCM) Maintenance: This course will be designed to introduce the student to the hardware, operation, and maintenance of the RLCM (including manual and automatic line testing of the RLCM).

Remote Switching Center (RSC) Maintenance: This course will be designed to introduce the student to the hardware, operation, and maintenance of the RSC.

Meridian SL-100 Advanced Hardware Maintenance: This course will be designed to provide the students with the ability to perform advanced level Meridian SL-100 maintenance functions. The following topics will be discussed:

- Advanced Network maintenance,
- Preparation requirements for a new BCS application,
- Utilization of resident software programs which can aid the maintenance process,
- Advanced Central Control maintenance, and
- Procedures for troubleshooting beyond the circuit pack level.

Meridian SL-100 Cabinetized Remote Line Concentrating Module (RLCM) Commissioning: This course will be designed to provide the technical knowledge and skills to commission the Meridian SL-100 Cabinetized RLCM. This course will highlight the special RLCM commissioning requirements regarding cable sizes, power distribution, FSPs, and fan cooling units.

Meridian SL-100 Traffic Analysis: This course will be designed to provide instruction in using operational measurements that are generated by the Meridian SL-100 to:

- Determine if the current grade of service offered to users meets the original planned grade of service,
- Determine what and how much additional equipment or trunking, if any, should be added to your Meridian SL-100,
- Formulate management reports using trend analysis to reflect the health of your switch, and
- Analyze the kinds and amount of traffic that your Meridian SL-100 is being asked to handle.

Maintenance Related Operational Measurements: This course will be designed to provide switchroom maintenance personnel with a thorough knowledge of using OMs to assist them in preventive and corrective maintenance strategies for numerous hardware and software areas of the Meridian SL-100 (including lines, trunks, DS-1 spans, CPU and call processing software resources).

AUTOVON Hardware and Data Base Maintenance: This course will be designed to provide the maintenance/data base technician with practical experience in the AUTOVON interfacing of the four-wire subset, AUTOVON trunks, and the bridging to and from the IBN software of the Meridian SL-100.

SELF-PACED PRICE LIST AND ORDER FORM

URSE #	COURSE TITLE	QUANTITY	X DOLLARS	EXTENDED PRICE
022	MERIDIAN SL-1NT/XT DIFFERENCES VIDEO PKG. Includes Differences Document		150.00	
022A	MERIDIAN SL-1NT/XT DIFFERENCES DOCUMENT additional copies		25.00	
040	INTEGRATED VOICE MESSAGING SYSTEM PRODUCT MARKETING		125.00	
050S	BASIC TELEPHONY FOR TECHNICIANS – STUDENT GUIDE		50.00	
050A	BASIC TELEPHONY FOR TECHNICIANS -- ADMINISTRATOR GUIDE		250.00	
051	INTRODUCTION TO MERIDIAN SL-1		225.00	
070	MERIDIAN SL-1 SYSTEMS ENGINEERING		225.00	
071	MERIDIAN SL-1 TRAFFIC ANALYSIS		225.00	
		TOTALS		

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

_____

_____

TELEPHONE: _____

SHIP TO: _____

_____

_____

_____

MAKE CHECKS PAYABLE TO: NORTHERN TELECOM INC.

PAYMENT MUST ACCOMPANY ORDER.

MAIL TO:
NORTHERN TELECOM INC.
Meridian SL-1 Training Center
520 Central Parkway, Suite 300
Plano, Texas 75074

NORTHERN TELECOM USE ONLY:

NTI DIVISION: _____
NTI DEPARTMENT: _____

OW 4 TO 6 WEEKS FOR DELIVERY

Customer Training Courses

12/09/86

COURSE SCHEDULE - 1987
Plano, Texas

To schedule courses at the Plano Training Center: (214) 422-8138

Course Title	Course #	# of Days	Start Day	Tuition Rate	January				February				March					April				May				June				
					5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Basic Alternate Route Selection (BARS)	110	5	Mon	1000	√				√				√				√					√					√			
X11 Feature Administration	111	10	Mon	2000	√		√		√		√		√		√		√			√			√			√		√		
Meridian SL-1 LANSTAR Data Products Feature Administration	130	5	Mon	1000				√								√											√			
X37 Feature Administration	137	5	Mon	1000				√										√							√					
Automatic Call Distribution (A-C2)	150	5	Mon	1000		√				√				√						√			√				√			
Automatic Call Distribution (ACD-D)	151	5	Mon	1000			√				√										√			√				√		
ACD Management (A-C2)	155	3	Mon	600								√			√									√				√		
ACD Management (ACD-D)	156	4	Mon	800									√			√						√							√	
Meridian SL-1/N/NT Installation	201	10	Mon	2000	√			√			√			√			√									√				
Meridian SL-1/XN/XT Installation	202	10	Mon	2000				√			√			√			√			√			√				√			
Meridian SL-1/MS/S Installation	203	10	Mon	2000				√			√			√							√					√				
Meridian SL-1 Maintenance	210	10	Mon	2000				√																		√				
Meridian SL-1/N/NT Maintenance	211	5	Mon	1000			√			√			√			√												√	√	
Meridian SL-1/XN/XT Maintenance	212	5	Mon	1000						√			√			√										√			√	
Meridian SL-1/MS/S Maintenance	213	5	Mon	1000						√			√			√				√			√					√		
Meridian SL-1 Trunks and Transmission	242	10	Mon	1000													√													
Meridian SL-1 Hardware and LANSTAR Data Products Provisioning	270	10	Mon	2000	√										√													√		
Meridian SL-1 Protocol Converters	304	3	Mon	600													√											√		
Meridian SL-1 LANSTAR Data Products Installation and Maintenance	305	10	Mon	2000								√			√					√			√			√				
Meridian SL-1 Digital Interface Equipment	306	5	Mon	1000										√								√						√		
TRU CDR (Admin)	310	4	Mon	800							√										√									
TRU CDR (Installation and Operation)	311	5	Mon	1000	√							√					√					√								
Sales Courses																														
Data Concepts	410	5	Mon	1000					√									√									√			
Meridian SL-1 Familiarization	500	5	Mon	1000	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√		√	√	√	√	
Meridian SL-1 Product Marketing	505	5	Mon	1000	√								√									√								
Meridian SL-1 Advanced Services	511	5	Mon	1000		√				√				√						√			√					√		
Meridian SL-1 LANSTAR Data Products	512	5	Mon	1000			√				√				√						√			√					√	
Meridian SL-1 Applications and Product Selling Skills	525	5	Mon	1000				√								√									√					
Meridian SL-100 Product Marketing	535	5	Mon	1000				√					√							√							√			
Meridian SL-100 Sales Engineering	540	5	Mon	600											√													√		
PTE Sales Strategies Forum	650	4	Mon	800		√						√	√	√	√		√			√	√	√		√		√	√		√	

Note: Course schedule and content subject to change.

COURSE SCHEDULE - 1987
Plano, Texas

To schedule courses at the Plano Training Center: (214) 422-8138

Course Title	Course #	# of Days	Start Day	Tuition Rate	July				August					September				October				November					December			
					6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14		
Basic Alternate Route Selection (BARS)	110	5	Mon	1000	√				√				√		√					√				√		√				
X11 Feature Administration	111	10	Mon	2000	√	√	√	√	√	√	√	√			√		√		√		√		√			√	√			
Meridian SL-1 LANSTAR Data Products Feature Administration	130	5	Mon	1000		√													√								√			
X37 Feature Administration	137	5	Mon	1000			√														√									
Automatic Call Distribution (A-CD)	150	5	Mon	1000	√					√					√			√				√								
Automatic Call Distribution (ACD-D)	151	5	Mon	1000		√					√					√			√				√			√				
ACD Management (A-CD)	155	3	Mon	600				√	√												√						√			
ACD Management (ACD-D)	156	4	Mon	800			√					√					√						√					√		
Meridian SL-1N/NT Installation	201	10	Mon	2000	√			√			√				√			√				√				√				
Meridian SL-1XN/XT Installation	202	10	Mon	2000	√			√			√				√			√				√				√				
Meridian SL-1MS/S Installation	203	10	Mon	2000	√			√			√				√			√								√				
Meridian SL-1 Maintenance	210	10	Mon	2000	√										√															
Meridian SL-1N/NT Maintenance	211	5	Mon	1000			√			√			√				√			√				√				√		
Meridian SL-1XN/XT Maintenance	212	5	Mon	1000			√			√			√				√			√				√				√		
Meridian SL-1MS/S Maintenance	213	5	Mon	1000			√			√			√				√			√				√				√		
Meridian SL-1 Trunks and Transmission	242	10	Mon	1000							√																			
Meridian SL-1 Hardware and LANSTAR Data Products Provisioning	270	10	Mon	2000														√							√					
Meridian SL-1 Protocol Converters	304	3	Mon	600																	√									
Meridian SL-1 LANSTAR Data Products Installation and Maintenance	305	10	Mon	2000		√				√					√			√				√				√				
Meridian SL-1 Digital Interface Equipment	306	5	Mon	1000	√			√				√												√			√			
TRU CDR (Admin)	310	4	Mon	800	√															√										
TRU CDR (Installation and Operation)	311	5	Mon	1000		√							√								√						√			
Sales Courses																														
Data Concepts	410	5	Mon	1000	√											√			√									√		
Meridian SL-1 Familiarization	500	5	Mon	1000	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√		√	√	√			
Meridian SL-1 Product Marketing	505	5	Mon	1000	√										√						√									
Meridian SL-1 Advanced Services	511	5	Mon	1000			√			√						√						√				√				
Meridian SL-1 LANSTAR Data Products	512	5	Mon	1000				√			√						√						√				√			
Meridian SL-1 Applications and Product Selling Skills	525	5	Mon	1000					√									√						√						
Meridian SL-100 Product Marketing	535	5	Mon	1000		√					√							√				√								
Meridian SL-100 Sales Engineering	540	5	Mon	800			√								√								√							
PTE Sales Strategies Forum	650	4	Mon	800	√		√		√	√		√			√		√	√		√		√		√		√	√			

Note: Course schedule and content subject to change.

12/09/86

COURSE SCHEDULE - 1987
Los Alamitos, California

To schedule courses at the Los Alamitos Training Center: (213) 598-7657

Course Title	Course #	# of Days	Start Day	Tuition Rate	January				February				March					April				May				June				
					5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Basic Alternate Route Selection (BARS)	110	5	Mon	1000		√						√								√							√			
X11 Feature Administration	111	10	Mon	2000	√		√		√		√						√			√		√	√				√			
Electronic Switched Network (ESN)	121	10	Mon	2000			√							√							√									
Automatic Call Distribution (A-C2)	150	5	Mon	1000	√										√													√		
Meridian SL-1N/NT Installation	201	10	Mon	2000	√			√				√			√						√					√				
Meridian SL-1XN/XT Installation	202	10	Mon	2000			√			√				√			√						√				√			
Meridian SL-1MS/S Installation	203	10	Mon	2000		√										√														
Meridian SL-1N/NT Maintenance	211	5	Mon	1000			√			√				√			√						√					√		
Meridian SL-1XN/XT Maintenance	212	5	Mon	1000					√			√				√				√						√			√	
Meridian SL-1MS/S Maintenance	213	5	Mon	1000				√										√												
Meridian SL-1 Hardware and LANSTAR Data Products Provisioning	270	10	Mon	2000					√				√							√										
IVMS Introduction and Operation	307	3	Wed	600	√																									
IVMS Inst. & Maint.	308	5	Mon	1000							√							√					√							
Introduction to Data Communications	400	5	Mon	1000							√				√							√								
Meridian SL-1 Familiarization	500	5	Mon	1000					√				√			√				√				√			√			
Meridian SL-1 Product Marketing	505	5	Mon	1000														√										√		

Note: Course schedule and content subject to change.

MacDraw II

COURSE SCHEDULE - 1987

Los Alamitos, California

To schedule courses at the Los Alamitos Training Center: (213) 598-7657

Course Title	Course #	# of Days	Start Day	Tuition Rate	July				August					September				October				November					December			
					6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14		
Basic Alternate Route Selection (BARS)	110	5	Mon	1000						√											√								
X11 Feature Administration	111	10	Mon	2000		√			√		√	√			√		√	√		√			√				√			
Electronic Switched Network (ESN)	121	10	Mon	2000		√									√											√				
Automatic Call Distrjbution (A-C2)	150	5	Mon	1000							√											√				√				
Meridian SL-1N/NT Installation	201	10	Mon	2000	√			√				√				√				√			√							
Meridian SL-1XN/XT Installation	202	10	Mon	2000		√			√						√			√				√				√				
Meridian SL-1MS/S Installation	203	10	Mon	2000	√												√	√												
Meridian SL-1N/NT Maintenance	211	5	Mon	1000			√			√					√			√				√				√				
Meridian SL-1XN/XT Maintenance	212	5	Mon	1000				√			√						√			√				√				√		
Meridian SL-1MS/S Maintenance	213	5	Mon	1000			√												√											
Meridian SL-1 Hardware and LANSTAR Data Products Provisioning	270	10	Mon	2000				√												√										
IVMS Introduction and Operation	307	3	Wed	600							√																			
IVMS Inst. & Maint.	308	5	Mon	1000	√														√											
Introduction to Data Communications	400	5	Mon	1000						√						√					√									
Meridian SL-1 Familiarization	500	5	Mon	1000				√				√					√			√			√				√			
Meridian SL-1 Product Marketing	505	5	Mon	1000									√												√					

MacDr.II

Note: Course schedule and content subject to change.

COURSE SCHEDULE - 1987

Parsippany, New Jersey

To schedule at the Parsippany Training Center: (201) 539-7695

Course Title	Course #	# of Days	Start Day	Tuition Rate	January				February				March					April				May				June				
					5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Basic Alternate Route Selection (BARS)	110	5	Mon	1000				√									√					√							√	
X11 Feature Administration	111	10	Mon	2000		√				√					√					√			√				√	√			
ESN	121	10	Mon	2000					√														√								
LANSTAR Data Products	130	5	Mon	1000								√																			
Automatic Call Distribution (A-C2)	150	5	Mon	1000								√										√							√		
ACD Management (A-C2)	155	3	Mon	600			√																					√			
Meridian SL-1 Traffic Implementation and Interpretation	171	3	Mon	600		√														√											
Meridian SL-1N/NT Installation	201	10	Mon	2000	√															√											
Meridian SL-1XN/XT Installation	202	10	Mon	2000				√																		√					
Meridian SL-1 Maintenance	210	10	Mon	2000							√												√								
Meridian SL-1N/NT Maintenance	211	5	Mon	1000			√															√									
Meridian SL-1XN/XT Maintenance	212	5	Mon	1000						√																		√			
Meridian SL-1 Trunks and Transmission	242	10	Mon	2000													√														
Introduction to Data Communications	400	5	Mon	1000										√																	
Meridian SL-1 Familiarization	500	5	Mon	1000	√				√					√				√								√					
Meridian SL-1 Product Marketing	505	5	Mon	1000								√												√							

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Note: Course schedule and content subject to change.

12/09/86

COURSE SCHEDULE - 1987
Parsippany, New Jersey

To schedule at the Parsippany Training Center: (201) 539-7695

Course Title	Course #	# of Days	Start Day	Tuition Rate	JULY				AUGUST					SEPTEMBER				OCTOBER				NOVEMBER					DECEMBER			
					6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14		
Basic Alternate Route Selection (BARS)	110	5	Mon	1000									√								√									
X11 Feature Administration	111	10	Mon	2000		√		√			√					√			√							√				
ESN	121	10	Mon	2000																		√								
LANSTAR Data Products	130	5	Mon	1000																										
Automatic Call Distribution (A-C2)	150	5	Mon	1000						√			√								√									
ACD Management (A-C2)	151	3	Mon	600																		√								
ACD Management (A-C2)	155	3	Mon	600	√											√			√											
Meridian SL-1 Traffic Implementation and Interpretation	171	3	Mon	600											√			√												
Meridian SL-1N/NT Installation	201	10	Mon	2000											√							√								
Meridian SL-1XN/XT Installation	202	10	Mon	2000						√															√					
Meridian SL-1MS/S Installation	203	10	Mon	2000	√																									
Meridian SL-1 Maintenance	210	10	Mon	2000				√									√													
Meridian SL-1N/NT Maintenance	211	5	Mon	1000																			√							
Meridian SL-1XN/XT Maintenance	212	5	Mon	1000								√																		
Meridian SL-1 Trunks and Transmission	242	10	Mon	2000															√											
Meridian SL-1 Hardware and LANSTAR Products Provisioning	306	10	Mon	2000			√														√									
Introduction to Data Communications	400	5	Mon	1000									√																	
Meridian SL-1 Familiarization	500	5	Mon	1000	√					√					√			√					√							
Meridian SL-1 Product Marketing	505	5	Mon	1000		√													√											

MacDraft

Note: Course schedule and content subject to change.

11/10/86

COURSE SCHEDULE - 1987
Richardson, Texas

To schedule courses at the Richardson Training Center: (214) 234-7722

Course Title	Course #	# of Days	Tuition Rate	January				February				March					April				May				June				
				5	12	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Transmission I	100	5	1000										√										√					
Transmission II	102	15	3000	√				√						√					√								√		
Intro. to Meridian SL-100/DMS-250	105	5	1000	√							√	√							√	√					√	√	√		
Basic Telephony	120	4	800						√								√						√						√
Meridian SL-100/DMS-250 Commission.*	140	25	5000																										
Meridian SL-100 Translations	220	10	2000	√		√		√	√	√	√		√		√	√	√			√			√	√	√		√		
Meridian SL-100 Translations II	221	5	1000					√														√							
Meridian SL-100/DMS-250 Methods of Operation/Provisioning	231	10	2000	√		√				√				√						√				√			√		
Meridian SL-100 Maintenance	240	25	5000	√	√	√					√	√	√					√	√	√					√	√	√		
Meridian SL-100 Trat. Admin./Olds	241	5	1000		√	√	√						√	√						√	√					√	√	√	
Meridian SL-100 LANSTAR Data Services Operations and Maintenance	340	5	1000								√														√				
System Management Overview	350	2	400	√													√												
System Management Operations	351	4	800					√														√							
DMS-250 Operational Procedures (NTOP)	400	5	1000								√														√	√			
DMS-250 Systems Translations	420	5	1000						√			√				√			√				√			√			
CTSS 1000 Theory and Maintenance*	440	14	2800																										
CTSS 4000 Theory and Maintenance*	441	14	2800																										
DMS-250 Maintenance	442	25	5000	√	√	√					√		√					√	√	√					√		√		
DMS-MTX Maintenance	443	25	5000									√														√			
DMS-MTX Cell Site Controller Maintenance	444	10	2000																										
DMS-300 Supplemental Maintenance*	448	5	1000																										
Meridian SL-100 Feature Activation and Assignment	530	5	1000		√				√			√					√		√				√			√			

NOTES

1. The * indicates that this particular course is taught only as required. Contact the Training Center Coordinator to schedule one of these classes.
2. Travel and expenses are the responsibility of the student's parent organization.
3. Scheduling for courses 510,539,541,542,548,549,550,551,552,553,555,556,557,558,559,560,561,562, and 563 should be made through your company's Program Manager or through the Training Center Coordinator. Scheduling for all other courses is made through the Training Center Coordinator.
4. This schedule reflects the latest training information available at the Northern Telecom Inc., IOS Training Center in Richardson, Texas. All issues prior to this date are to be considered invalid. Additions or modifications to this schedule will be distributed as required.

11/10/86

COURSE SCHEDULE - 1987
Richardson, Texas

To schedule courses at the Richardson Training Center: (214) 234-7722

Course Title	Course #	# of Days	Tuition Rate	July				August					September				October				November					December			
				6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
Transmission I	100	5	1000			√															√								
Transmission II	102	15	3000							√					√									√				
Intro. to Meridian SL-100/DMS-250	105	5	1000			√	√	√		√		√							√	√	√				√	√	√		
Basic Telephony	120	4	800				√						√						√						√				
Meridian SL-100/DMS-250 Commission.*	140	25	5000																										
Meridian SL-100 Translations	220	10	2000	√	√	√		√			√	√	√		√		√		√		√	√			√	√			
Meridian SL-100 Translations II	221	5	1000	√						√							√												
Meridian SL-100/DMS-250 Methods of Operation/Provisioning	231	10	2000		√			√			√				√		√			√		√				√			
Meridian SL-100 Maintenance	240	25	5000			√	√	√					√	√	√			√	√										
Meridian SL-100 Traf. Admn./OMs	241	5	1000	√				√	√						√	√											√		
Meridian SL-100 LANSTAR Data Services Operations and Maintenance	340	5	1000					√											√										
System Management Overview	350	2	400		√													√											
System Management Operations	351	4	800				√																√						
DMS-250 Operational Procedures (NTOP)	400	5	1000											√											√				
DMS-250 Systems Translations	420	5	1000	√		√					√							√							√				
CTSS 1000 Theory and Maintenance*	440	14	2800																										
CTSS 4000 Theory and Maintenance*	441	14	2800																										
DMS-250 Maintenance	442	25	5000			√	√	√					√		√			√	√		√								
DMS-MTX Maintenance	443	25	5000											√															
DMS-MTX Cell Site Controller Maintenance	444	10	2000																										
DMS-300 Supplemental Maintenance*	446	5	1000																										
Meridian SL-100 Feature Activation and Assignment	530	5	1000	√			√				√			√									√		√		√		

NOTES

1. The * indicates that this particular course is taught only as required. Contact the Training Center Coordinator to schedule one of these classes.
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4. This schedule reflects the latest training information available at the Northern Telecom Inc., IOS Training Center in Richardson, Texas. All issues prior to this date are to be considered invalid. Additions or modifications to this schedule will be distributed as required.

IOS TRAINING REGISTRATION FORM
MERIDIAN SL-100/COMMON CARRIER

Return the completed registration form with check in full amount made payable to:

NORTHERN TELECOM INC.
IOS Training Center
860 Presidential Drive
Richardson, Texas 75081

Attn: Training Coordinator

Student Information:

Name: _____

Company: _____

(If Northern Telecom employee, NTI Division: _____
NTI Department: _____)

Address: _____

_____

_____

Telephone Number: (___) ___ - _____

Social Security #: ___ - ___ - _____

A confirmation letter will be sent to the company address unless specified otherwise.
If different:

_____

_____

_____

_____

Name & Company making reservation: _____

Telephone Number: (___) ___ - _____

Authorizing Name & Title (please print): _____

_____

Authorizing Signature: _____

- Course Number: _____
  Course Name: _____
  Training Date(s): _____

Tuition: _____
Method of Payment:
Check: ☐ Money Order: ☐
Purchase Order #: _____

- Check course prerequisites and ensure they have been met. If not, arrange to do so by contacting the Training Coordinator at (214)234-7722.

EWRCH:86M043H

IOS TRAINING CENTER SELF-PACED PRICE LIST AND ORDER FORM
MERIDIAN SL-100/COMMON CARRIER

COURSE #	COURSE TITLE	QUANTITY	X DOLLARS	TOTAL PRICE
810	Introduction to Meridian SL-100/DMS-250		$ 200.00	
820	Meridian SL-100 LANSTAR Data Services-Sales Engineer Course		$ 100.00	
830	Meridian SL-100 Provisioning Familiarization		$ 250.00	
	SUBTOTAL =			
			+ SHIPPING $5.00/BOOK =	
			GRAND TOTAL =	

NAME: _____

TITLE: _____

COMPANY: _____

(If Northern Telecom employee, NTI Division: _____

NTI Department: _____)

ADDRESS: _____

_____

_____

TELEPHONE NUMBER: ( ) _____

SHIP TO: _____

_____

_____

_____

Return the completed form with check in full amount made payable to:

NORTHERN TELECOM INC.
IOS Training Center
860 Presidential Drive
Richardson, Texas 75081

Method of Payment:
Check: ☐ Money Order: ☐
Purchase Order #: _____

EWRCH:86M046H

REGISTRATION FORM

Return the completed registration form with **check in full amount** made payable to:

Northern Telecom Inc.
Meridian SL-1 Training Center
520 Central Parkway, Suite 300
Plano, Texas 75074

Attn: Cash Receipts Clerk

Student Information:

Name: _____

Company: _____

Address: _____

_____

_____

Telephone Number: ( ) -

Social Security #: - -

Any related material and a confirmation letter will be sent to the company address unless specified otherwise.
If different:

_____

_____

_____

_____

Name & Company making reservation: _____

Telephone Number: ( ) -

Authorizing Signature: _____

Name & Title (please print): _____

Course Number: _____
Class Number: _____
Course Name: _____
Training Date(s): _____

Tuition: _____

Training Location:
Plano _____ Parsippany _____ Los Alamitos _____

Check course prerequisites and ensure they have been met. If not, arrange to do so by contacting the Training Coordinator or ordering self-pace material.